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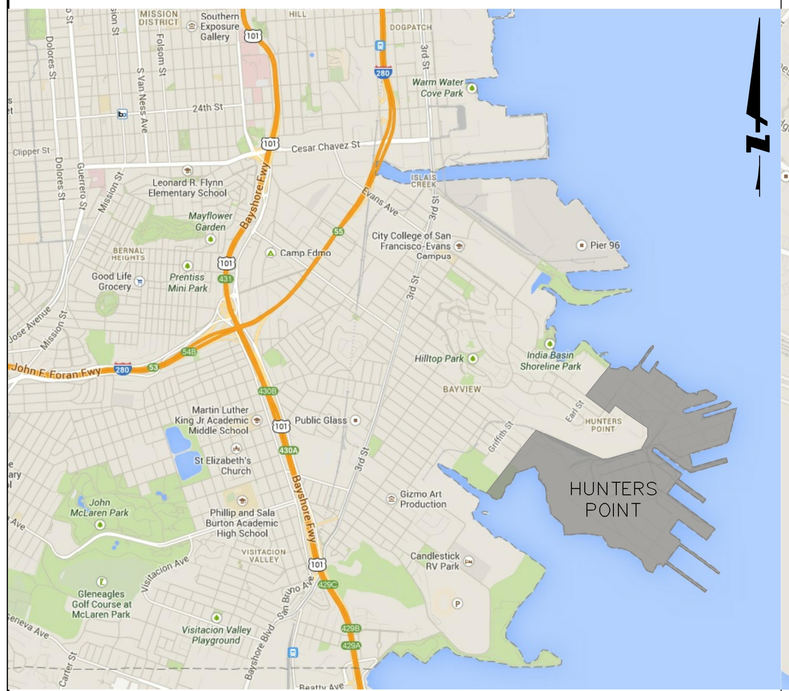
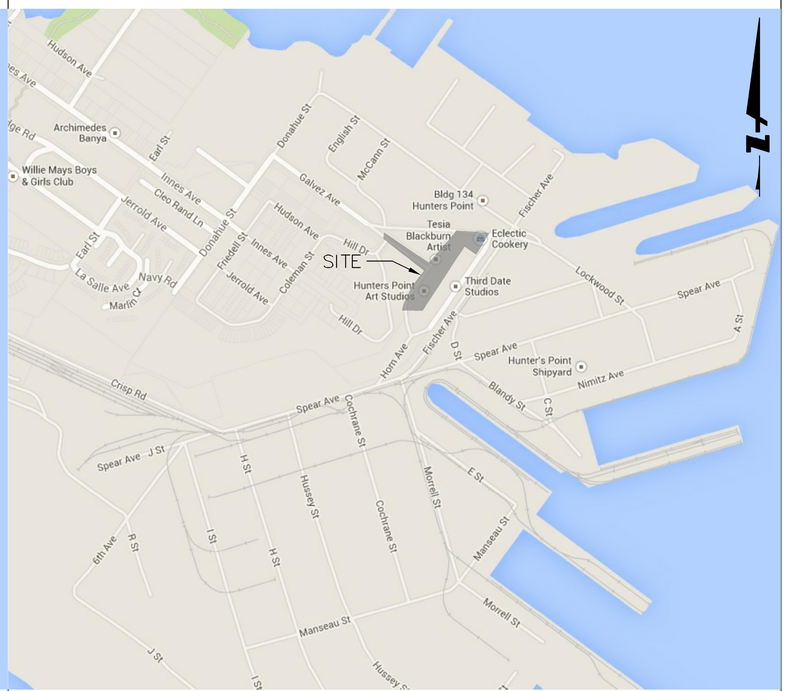
MASS GRADING, DEMO, & PHASE II UTILITY PERMIT PLANS

HUNTERS POINT
BUILDING 101 ARTISTS SUB-PHASE
MASS GRADING, DEMO, & PHASE II UTILITY PERMIT PLANS
CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

LOCATION MAP



VICINITY MAP



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LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER CHARLES J. PLIMAL No. 53325 CIVIL STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II
ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
TITLE SHEET
CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale N/A
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C1.0

DRAWING NAME: J:\Eng1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C1.0 TITLE SHEET.dwg
PLOT DATE: 08-12-15 PLOTTED BY: sarw

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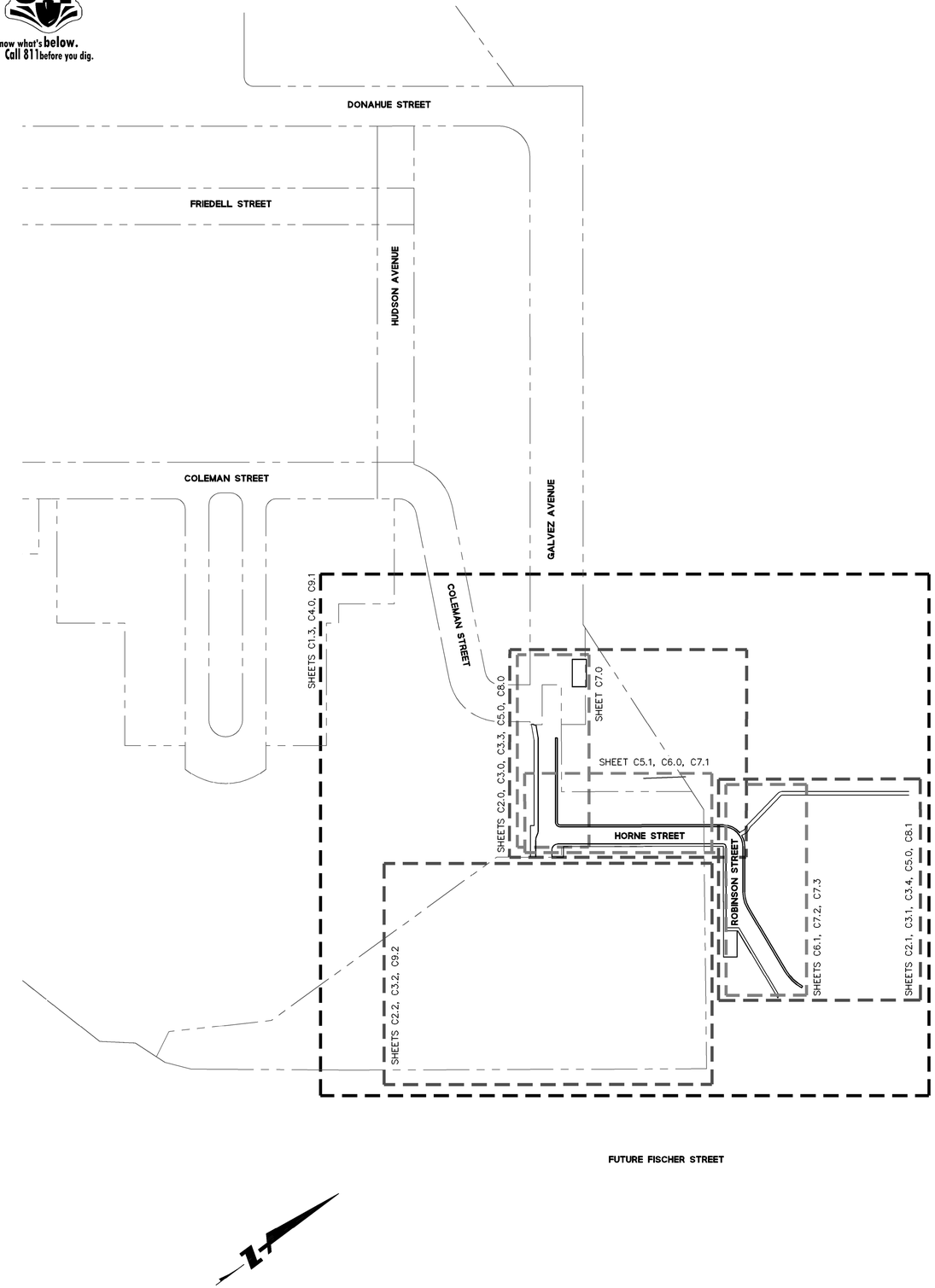

INDEX MAP
SCALE 1"=100'

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		RIGHT-OF-WAY LINE
		PROPERTY LINE
		EASEMENT LINE
		CENTERLINE
GAS		GAS
EX 8"W	8"W	LOW PRESSURE WATER
	8"W	LOW PRESSURE WATER NOT IN PERMIT
EX8"RW	8"RW	RECYCLED WATER
	8"RW	RECYCLED WATER NOT IN PERMIT
EX15"SS		SANITARY SEWER
	12"SS	SANITARY SEWER NOT IN PERMIT
	6"SSFM	SANITARY SEWER FORCE MAIN
	12"SD	STORM DRAIN NOT IN PERMIT
EX27"SD	27"SD	STORM DRAIN
10	10	CONTOUR LINE
		24" HOODED INLET
		TELECOM MANHOLE
		BOLLARDS
		POWER MANHOLE
		STORM DRAIN MANHOLE
		STORM DRAIN CATCH BASIN
		WATER METER
		WATER VALVE
		AIR RELIEF VALVE
		CAP & BLOW OFF VALVE

EXISTING	PROPOSED	DESCRIPTION
EXJT		JOINT TRENCH
		SIGN
T		COMMUNICATION VAULT
		SANITARY SEWER MANHOLE
MON		MONITORING WELL
		DITCH FLOW LINE
		STREET LIGHT
		SURVEY MONUMENT
		CONTROL POINT
x 32.15	x 32.15	AREA SPOT ELEVATION
		JOINT PLOE
		LIGHT POLE/JOINT POLE
		SIGN POLE
		GUY POLE
		BACKFLOW PREVENTER
CO		CLEANOUT
E		ELECTRICAL VAULT
		LOW PRESSURE WATER HYRDRANT
	5 7	SFPUC BOX
	TS	AT&T BOX
	C	COMCAST BOX
	D	D.T.I.S BOX

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
AD	AREA DRAIN
AHJ	AUTHORITY HAVING JURISDICTION
AP	ANGLE POINT
APPROX	APPROXIMATE
ARV	AIR RELEASE VALVE
BC	BEGINNING OF CURVE OR BACK OF CURB
BCR	BEGIN CURB RETURN
BFP	BACKFLOW PREVENTER
BM	BENCHMARK
BMP	BEST MANAGEMENT PRACTICE
BOL	BOLLARD
BOV	BLOW-OFF VALVE
BVC	BEGINNING OF VERTICAL CURVE
B/W	BACK OF WALK
BW	BOTTOM OF WALL
CB	CATCH BASIN
CC	CLAY CAP
CIP	CAST IRON PIPE
CMV	CITY OF MOUNTAIN VIEW
℄,C/L	CENTER LINE
CFC	CALIFORNIA FIRE CODE
CL	CLASS
CLR	CLEARANCE, CLEAR
CO	CLEANOUT
COMP	COMPACTION
CONC	CONCRETE
CONF	CONFORM
CONN	CONNECTION
COTR	CONTRACTING OFFICER TECHNICAL REPRESENTATIVE
CSP	CALTRANS STANDARD PLANS
CY	CUBIC YARD
DEPT	DEPARTMENT
DI	DROP INLET
DCDA	DOUBLE CHECK DETECTOR ASSEMBLY
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWING
DWY	DRIVEWAY
E	EAST
EC	END OF CURVE OR END OF CURB
ECR	END OF CURB RETURN
EG	EXISTING GRADE
ELB	ELBOW
ELEC	ELECTRIC
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
ESG	EMERGENCY SERVICE GATE (ACCESS FOR SECURITY, FIRE, AND OTHER EMERGENCY VEHICLES).
EV	ELECTRICAL VAULT
EVC	END OF VERTICAL CURVE
EW	EACH WAY
EX	EXISTING
FC	FACE OF CURB
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FND	FOUND
FS	FIRE SERVICE
FT	FEET
G	GAS
GA	GAGE OR GAUGE
GALV	GALVANIZED
GB	GRADE BREAK
GR	GRATE
GV	GATE VALVE
HC	HANDICAP
HDPE	HIGH DENSITY POLYETHYLENE
HOR	HORIZONTAL
IAW	IN ACCORDANCE WITH
ID	INSIDE DIAMETER
INV	INVERT
IRR	IRRIGATION
JB	JUNCTION BOX
JP	JOINT POLE
JT	JOINT TRENCH
L	LENGTH
LAT	LATERAL
LB	POUND
LF	LINEAR FEET
LG	LIP OF GUTTER
LP	LOW POINT
LT	LEFT
MAX	MAXIMUM
MDD	MAXIMUM DRY DENSITY
MECH	MECHANICAL
MG	MAN-GATE
MH	MANHOLE
MIN	MINIMUM
MON	MONITORING/MONUMENT
N	NORTH
NIC	NOT IN CONTRACT
NIP	NOT IN PERMIT
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OG	ORIGINAL GROUND
OH	OVERHEAD
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PB	PULL BOX
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE OR PORTLAND CEMENT CONCRETE
PE	POLYETHYLENE
PED	PEDESTRIAN
PERF	PERFORATED
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
℄,P/L	PROPERTY LINE
PP	POWER POLE
PR	PROPOSED
PRC	POINT OF REVERSE CURVATURE
PSE	PUBLIC SERVICES EASEMENT
PT	POINT OF TANGENCY
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
R	RADIUS
RC	RELATIVE COMPACTION
RCP	REINFORCED CONCRETE PIPE
REV	REVISION
RG	ROUGH GRADING
RIM	RIM ELEVATION
RT	RIGHT
R/W,ROW	RIGHT OF WAY
RW	RECYCLED WATER
RWL	ROOF WATER LEADER
RWQCB	REGIONAL WATER QUALITY CONTROL BOARD
S	SOUTH
SAP	SEE ARCHITECTURAL PLANS
SBP	SEE BRIDGE PLANS
SD	STORM DRAIN
SDAD	STORM DRAIN AREA DRAIN
SDCB	STORM DRAIN CATCH BASIN
SDCO	STORM DRAIN CLEAN OUT
SDDI	STORM DRAIN DRAINAGE INLET
SDMH	STORM DRAIN MANHOLE
SDOF	STORM DRAIN OUTFALL
SEP	SEE ELECTRICAL PLANS
SG	SUB GRADE
SHT	SHEET
SIM	SIMILAR
SL	STREET LIGHT
SLP	SEE LANDSCAPE PLANS
SMP	SEE MECHANICAL PLANS
SOF	SOFFIT
SPEC	SPECIFICATION
SPP	SEE PLUMBING PLANS
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSFM	SANITARY SEWER FORCE MAIN
SSMH	SANITARY SEWER MANHOLE
SSP	SEE STRUCTURAL PLANS
STA	STATION
STD	STANDARD
STRUCT	STRUCTURAL
S/W	SIDEWALK
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
T, TEL	TELEPHONE OR TELECOM
TC	TOP OF CURB
TOS	TOP OF SLOPE
TEMP	TEMPORARY
TG	TOP OF GRATE
THK	THICKNESS
TP	TOP OF PAVEMENT
TTC	THEORETICAL TOP OF CURB
TW	TOP OF WALL
TYP	TYPICAL
UNK	UNKNOWN
VCP	VITRIFIED CLAY PIPE
VC	VERTICAL CURVE
VERT	VERTICAL
W	WEST
W/	WITH
WM	WATER METER
W, WL	WATER LINE
WV	WATER VALVE

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CHARLES J. PLIMPTON
No. 53325
CIVIL
STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
ABBREVIATIONS, LEGEND & INDEX MAP

CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

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GENERAL NOTES:

1. SUBDIVIDER: CP DEVELOPMENT CO. L.P.
1 CALIFORNIA STREET
SAN FRANCISCO, CA 94111
(415) 995–1770
STEPHEN PROUD

2. ON–SITE CIVIL ENGINEER: TELAMON ENGINEERING CONSULTANTS, INC.
855 FOLSOM ST., UNIT 142
SAN FRANCISCO, CA 94107
(415) 837–1336
CONTACT: MENNOR CHAN

3. OFF–SITE CIVIL ENGINEER: BKF ENGINEERS
255 SHORELINE DRIVE, SUITE NO. 200
REDWOOD CITY, CA 94065
(650) 482–6300
CONTACT: CHUCK HUMPAL

4. GEOTECHNICAL ENGINEER: ENGEO, INC.
332 PINE STREET, SUITE 300
SAN FRANCISCO, CA 94104
(415) 284–9900
STEFANOS PAPADOPULOS

5. BENCHMARK: VERTICAL CONTROL WAS PROVIDED BY CARLSON, BARBEE & GIBSON, INC. (CBG). LOCATED ON THE FIRE HYDRANT IN THE SOUTHWEST CORNER OF THE INNES AVENUE AND EARL STREET INTERSECTION. POSITIONED ON THE FIRE HYDRANT "3 CUTS LOWER STOP COCK FIRE HYDRANT" ELEVATION BEING 151.826' (SAN FRANCISCO CITY AND COUNTY DATUM + 100.00 FEET).

6. BASIS OF BEARINGS: HORIZONTAL CONTROL WAS PROVIDED BY CBG. THE BASIS OF BEARING FOR THEIR SURVEY IS BETWEEN "US NAVY MONUMENT" AND "CANDLESTICK", THE BEARING BEING N37°08'31"E PER RECORD OF SURVEY 7751 (EE SURVEY MAPS 206). DISTANCES SHOWN HEREON ARE GROUND DISTANCES IN U.S. SURVEY FEET. THIS DERIVED FROM GPS OBSERVATIONS MADE IN FEBRUARY AND MARCH 2012 AT THE FOLLOWING POINTS:

HORIZONTAL CONTROL TABLE

NORTHING	EASTING	DESCRIPTION
2093622.933	6020345.522	BRS DSK RCE14876 MONUMENT WELL (GRID = GROUND)
2085128.546	6013911.479	2" CALTRANS BRASS DISK "CANDLESTICK", HPGN D CA 04 GF, PID–AB7679 (GRID)

VERTICAL CONTROL TABLE

POINT NO.	ELEV.	DESCRIPTION
55	134.60	BRS DSK RCE14876 IN WELL
64	124.83	MAGNAIL WP A
66	118.94	MON WELL FLUSH WITH DIVOT WP B
67	119.56	MAGNAIL WP C

7. EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS IS BASED ON AN AERIAL SURVEY PERFORMED BY AEROMETRIC SURVEYS IN SEPTEMBER, 2014, AND SUPPLEMENTAL TOPOGRAPHIC SURVEY PERFORMED BY TELAMON ENGINEERING CONSULTANTS, INC. ON MARCH, 2014. CONTRACTOR SHALL REVIEW THE PLANS AND SPECIFICATIONS AND CONDUCT FIELD INVESTIGATIONS AS REQUIRED TO VERIFY EXISTING CONDITIONS AT THE PROJECT SITE.

8. INFORMATION REGARDING EXISTING SUBSURFACE IMPROVEMENTS AND UTILITIES SHOWN ON THESE PLANS WAS TAKEN FROM RECORD DATA KNOWN TO THE DESIGN ENGINEER AND IS NOT MEANT TO BE A FULL CATALOG OF EXISTING CONDITIONS. CONTRACTOR SHALL CONDUCT FIELD INVESTIGATIONS AS REQUIRED TO VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING SUBSURFACE IMPROVEMENTS AND UTILITIES (WHETHER SHOWN ON THESE PLANS OR NOT) PRIOR TO THE COMMENCEMENT OF WORK. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHO SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF DISCREPANCIES BETWEEN EXISTING CONDITIONS IN THE FIELD AND INFORMATION SHOWN ON THESE PLANS.

9. IF ANY DAMAGE TO EXISTING UTILITIES OCCURS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER REPRESENTATIVE AND SHALL REPAIR THE DAMAGE AS DIRECTED BY THE ENGINEER AND OWNER AT NO ADDITIONAL COMPENSATION.

10. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE, WHO SHALL THEN CONTACT THE CIVIL ENGINEER IN WRITING VIA CHAIN OF CONTACT THROUGH THE CONSTRUCTION MANAGER OF ANY DIFFERENCES IN LOCATIONS OF EXISTING UTILITIES SHOWN, OR ANY CONFLICTS WITH THE DESIGN THAT BECOME APPARENT DURING CONSTRUCTION, BEFORE CONTINUING WITH WORK IN THAT AREA.

11. CONTRACTOR SHALL HIRE A UTILITY LOCATOR TO MARK EXISTING UTILITIES PRIOR TO CONSTRUCTION. POTHOLING BY THE CONTRACTOR OR UTILITY COMPANY SHALL BE PERFORMED WHERE NEEDED TO VERIFY LOCATIONS AND DEPTHS OF UTILITIES.

12. UTILITY CONNECTIONS AND DISCONNECTIONS NECESSARY TO COMPLETE THE WORK WILL BE PERFORMED IN A MANNER TO MINIMIZE UTILITY SERVICE INTERRUPTIONS TO THE FACILITY OPERATIONS IN THE VICINITY OF CONSTRUCTION. IF NECESSARY, THE CONTRACTOR SHALL PROVIDE FOR TEMPORARY BYPASS SERVICES IN ORDER TO MAINTAIN THE FACILITY'S OPERATIONS, AT NO ADDITIONAL COST TO THE OWNER. THE OWNER'S FIELD REPRESENTATIVE SHALL COORDINATE ALL UTILITY INTERRUPTIONS DURING ALL PHASES OF CONSTRUCTION. CONTRACTOR SHALL COORDINATE ALL "DOWN TIME" WITH OWNER'S REPRESENTATIVE.

13. CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS AT THE JOB SITE FOR PUBLIC WORKS, AMBULANCE, POLICE, AND FIRE DEPARTMENTS, AND THOSE AGENCIES RESPONSIBLE FOR MAINTENANCE OF UTILITIES IN THE VICINITY OF THE JOB SITE.

14. CONTRACTOR SHALL PROVIDE BARRICADES TO PROTECT THE GENERAL PUBLIC AND TO PREVENT UNCONTROLLED ACCESS TO THE SITE AT ALL TIMES.

15. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE CONSTRUCTION MANAGER IN WRITING WHO SHALL THEN NOTIFY BKF ENGINEERS AT (650) 482–6300 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.

16. THE CONTRACTOR SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE STATE CONSTRUCTION SAFETY ORDER.

17. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF THE DIVISION OF INDUSTRIAL SAFETY PERTAINING TO "CONFINED SPACES". ANY MANHOLE, CULVERT, DROP INLET, OR TRENCH (WHICH COULD CONTAIN AIR), THAT IS NOT READILY VENTILATED, MAY BE CONSIDERED A "CONFINED SPACE".

18. CONTRACTOR SHALL MAINTAIN GOOD HOUSEKEEPING PRACTICES AT THE JOB SITE. EXCESS BUILDING MATERIALS AND DEBRIS SHALL BE REMOVED PROMPTLY FROM THE JOB SITE AND DISPOSED OF AT AN APPROVED DUMP SITE. THE JOB SITE SHALL BE LEFT "BROOM CLEAN" AT THE END OF EACH WORKDAY.

19. ALL PERMITS FOR WORK ASSOCIATED WITH THESE PLANS, INCLUDING ENCROACHMENT PERMITS REQUIRED FOR WORK WITHIN EXISTING PUBLIC RIGHTS OF WAY, SHALL BE OBTAINED BY THE CONTRACTOR.

20. THE CONTRACTOR'S LICENSED SURVEYOR WILL PROVIDE CONSTRUCTION STAKING FOR ALL WORK. THE NUMBER AND LOCATION OF STAKES REQUIRED SHALL BE DETERMINED BEFORE THE CONSTRUCTION BEGINS. ALL STAKING REQUESTS SHOULD BE DIRECTED TO THE OWNER A MINIMUM OF 48 HOURS PRIOR TO ACTUAL NEED. ANY ADDITIONAL STAKING OR RESTAKING WILL ONLY BE DONE AS DIRECTED AND AUTHORIZED BY THE OWNER OR HIS AUTHORIZED AGENT AT THE EXPENSE OF THE CONTRACTOR.

21. THE CONTRACTOR SHALL NOT DISTURB OR DESTROY ANY PERMANENT SURVEY POINTS WITHOUT THE CONSENT OF THE CITY ENGINEER. ANY PERMANENT MONUMENTS OR POINTS DISTURBED OR DESTROYED SHALL BE REPLACED BY A LICENSED ENGINEER OR SURVEYOR AT THE CONTRACTOR'S EXPENSE.

22. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ALL NECESSARY PERMITS INCLUDING ENVIRONMENTAL REQUIREMENTS FOR REMOVAL AND DISPOSAL OF DEBRIS.

23. CONTRACTOR SHALL COORDINATE DEMOLITION AND EARTHWORK OPERATION WITH OTHER CONSTRUCTION PACKAGES, INCLUDING BUT NOT LIMITED TO:

(a) COMMERCIAL KITCHEN – DBI PERMIT PLANS
(b) ARTISTS PARCEL – DPW UTILITY PERMIT PLANS

24. ALL EARTHWORK FOR THIS SITE SHALL BE PERFORMED IN ACCORDANCE WITH THE SAN FRANCISCO HEALTH CODE, ARTICLE 31 REQUIREMENTS. CONTRACTOR SHALL COORDINATE WITH THE PROJECT'S ENVIRONMENTAL CONSULTANT, AND MAKE ADJUSTMENTS IN FIELD IN ACCORDANCE TO GEOSYNTEC ENGINEER'S DIRECTION. THE FOLLOWING DOCUMENT WAS PREPARED BY GEOSYNTEC CONSULTANTS, AND SHALL BE MADE PART OF THIS PLAN:

–DRAFT WORK PLAN TO CONDUCT RESTRICTED ACTIVITIES, HUNTERS POINT ARTIST'S RELOCATION PROJECT, NAVY PARCELS B, C, AND UC–2, HUNTERS POINT SHIPYARD, SAN FRANCISCO, CA, PROJECT NUMBER: WR1247.0301, DATED SEPTEMBER 2014.

25. WHERE UNSTABLE OR UNSUITABLE MATERIALS ARE ENCOUNTERED DURING SUBGRADE PREPARATION, THE AREA IN QUESTION SHALL BE OVER EXCAVATED AND REPLACED BY SELECTED BACKFILL MATERIAL, AS DIRECTED IN THE FIELD BY THE SOILS ENGINEER AND ENVIRONMENTAL CONSULTANT.

26. CONTRACTOR SHALL PROVIDE FOR DEWATERING OPERATION DURING CONSTRUCTION PER GEOTECHNICAL REPORT RECOMMENDATIONS AND GOVERNING AGENCIES REQUIREMENTS FOR DISPOSAL OF GROUND WATER.

27. THE CONTRACTOR SHALL VERIFY THE FLOWLINE ELEVATION OF THE EXISTING SANITARY SEWER AND STORM DRAIN CONNECTION POINTS AND NOTIFY THE CONSTRUCTION MANAGER WHO SHALL NOTIFY THE CIVIL ENGINEER IMMEDIATELY IF MORE THAN 0.10 FOOT OF DIFFERENCE EXISTS FROM THIS PLAN.

28. THE CONTRACTOR SHALL COORDINATE THE SEWER, WATER, STORM DRAIN AND DRY UTILITIES CONSTRUCTION IN A MANNER TO PREVENT ANY CONFLICTS WHERE UTILITY LINES CROSS EACH OTHER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING PLANS FOR ALL OTHER UTILITIES FOR THIS PROJECT AND SHALL FAMILIARIZE HIMSELF THEREWITH, AND SHALL NOTIFY THE CONSTRUCTION MANAGER WHO SHALL NOTIFY THE CIVIL ENGINEER IMMEDIATELY OF ANY CONFLICT WITH THIS PLAN PRIOR TO THE START OF CONSTRUCTION.

29. THE CONTRACTOR SHALL PROVIDE ADEQUATE COVER FOR THE PROTECTION OF ALL PROPOSED AND EXISTING UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT.

30. ALL CUT AND FILL SLOPES AT THE BOUNDARY LINES SHALL BE CONSTRUCTED IN SUCH A MANNER THAT ADJACENT FENCES WILL NOT BE DAMAGED.

31. ALL GRADES SHOWN ARE FINISHED GRADES, UNLESS OTHERWISE NOTED.

32. ALL GRADED SLOPES ARE AS SHOWN IN THE PLANS TO COMPLY WITH THE GEOTECHNICAL EXPLORATION REPORT PREPARED BY ENGEO, INC., DATED DECEMBER 13, 2013.

33. GRADES ENCOUNTERED ON–SITE MAY VARY FROM THOSE SHOWN. CONTRACTOR SHALL REVIEW THE PLANS AND CONDUCT INVESTIGATIONS AS REQUIRED TO VERIFY EXISTING CONDITIONS AT THE PROJECT SITE.

34. THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, SURROUNDING LANDSCAPING, AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC., AND TO AVOID THE CREATION OF ANY LOW SPOTS OR HAZARDOUS CONDITIONS OR ANY ABRUPT OR APPARENT CHANGES IN APPEARANCE, GRADES, OR CROSS SLOPES.

35. THE DEVELOPER/OWNER SHALL HAVE A JOB SUPERINTENDENT OR A DESIGNATED RESPONSIBLE REPRESENTATIVE ON THE JOB SITE AT ANYTIME WORK IS IN PROGRESS DURING THE CONSTRUCTION OF THE PROJECT. THE DEVELOPER/OWNER SHALL ADVISE THE CITY ENGINEER WHOM THE DESIGNEE IS IN WRITING. THE NOTICE SHALL INCLUDE AN EMERGENCY NOTIFICATION PHONE NUMBER. THE CITY SHALL BE ADVISED IN WRITING IF THERE IS TO BE A CHANGE IN JOB–SITE REPRESENTATIVE.

36. A PRE–CONSTRUCTION MEETING OF ALL THE CONTRACTOR'S REPRESENTATIVES INVOLVED IN THE PROJECT WILL BE HELD PRIOR TO THE START OF CONSTRUCTION AT THE REQUEST OF THE CITY.

37. EXCAVATIONS SHALL BE ADEQUATELY SHORED, BRACED, AND SHEETED SO THAT THE EARTH WILL NOT SLIDE OR SETTLE AND SO THAT ALL EXISTING IMPROVEMENTS OF ANY KIND WILL BE FULLY PROTECTED FROM DAMAGE. ANY DAMAGE RESULTING FROM LACK OF ADEQUATE SHORING, BRACING AND SHEETING, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HE SHALL EFFECT NECESSARY REPAIRS OR RECONSTRUCTION AT HIS OWN EXPENSE. WHERE THE EXCAVATION FOR A CONDUIT TRENCH, STRUCTURE, AND/OR BORING OR JACKING PIT IS FIVE FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL CONFORM TO THE APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA. THE CONTRACTOR SHALL ALWAYS COMPLY WITH OSHA REQUIREMENTS.

38. ALL WORK SHALL CONFORM TO SUBDIVISION REGULATIONS FOR THE CANDLESTICK POINT/HUNTERS POINT SHIPYARD, AND ALL APPLICABLE CITY AND COUNTY OF SAN FRANCISCO STANDARD SPECIFICATIONS AND PLANS.

39. ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH REQUIREMENTS OF THE PROJECT GEOTECHNICAL ENGINEER. THE FOLLOWING GEOTECHNICAL DOCUMENTS PREPARED BY ENGEO INCORPORATED, SHALL BE MADE PART OF THIS PLAN:

–GEOTECHNICAL REPORT, HUNTERS POINT SHIPYARD PHASE II, CANDLESTICK POINT REDEVELOPMENT; PROJECT NO. 8472.000.001; DATED NOVEMBER 10, 2011.

–GEOTECHNICAL EXPLORATION, NEW ARTIST BUILDING, HUNTERS POINT SHIPYARD; PROJECT NO. 5638.600.600; DATED DECEMBER 13, 2013.

40. CONTRACTOR SHALL NOTIFY THE PROJECT INSPECTOR AT LEAST 48 HOURS PRIOR TO STARTING WORK.

41. ALL CONTRACTORS WILL BE RESPONSIBLE FOR THE VERIFICATION OF LOCATIONS OF ALL EXISTING UTILITIES IN THE FIELD. ALL CONTRACTORS SHALL CALL U.S.A. (CA. 1–800–227–2600) 48 HOURS BEFORE DIGGING AND OBTAIN AN IDENTIFICATION NUMBER (SECTION 4210.1 OF THE GOVERNMENT CODE).

42. HAZARDOUS MATERIALS:
UPON DISCOVERY OF HAZARDOUS MATERIAL, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE CONSTRUCTION MANAGER, WHO IS THEN RESPONSIBLE FOR NOTIFYING THE APPROPRIATE AGENCIES/JURISTICTIONS IN ACCORDANCE WITH APPLICABLE CODES AND REGULATIONS. THE HAZARDOUS MATERIALS MUST BE ADDRESSED AS SPECIFIED.

43. SHOULD CONTRACTOR UNCOVER HUMAN REMAINS ON SITE DURING CONSTRUCTION, CONTRACTOR SHALL CONTACT OWNER REPRESENTATIVE AND IN ACCORDANCE WITH PUBLIC RESOURCE CODE SECTION 5097.98, NO FURTHER EXCAVATION OR DISTURBANCE OF THE SITE OR ANY NEARBY AREA REASONABLY SUSPECTED TO OVERLIE ADJACENT HUMAN REMAINS SHALL BE DISTURBED UNTIL MITIGATION MEASURES HAVE BEEN IMPLEMENTED.

44. THIS PROJECT IS LOCATED WITHIN PRIVATE PROPERTY, AND IT HAS NOT BEEN REVIEWED BY AN ADA ACCESS COORDINATOR.

45. CONSTRUCTION AND MAINTENANCE CONTRACTORS, WHERE WORKERS MAY CONTACT HAZARDOUS SUBSTANCES AND/OR PETROLEUM–CONTAMINATED SOIL, SOIL VAPOR, OR GROUNDWATER WITHIN THE LIMITS OF WORK DURING EXCAVATION ACTIVITIES, ARE REQUIRED TO PREPARE A PROJECT–SPECIFIC ENVIRONMENTAL HEALTH AND SAFETY (EHASP).

46. OFFSITE SOIL DISPOSAL IS NOT ANTICIPATED DURING THIS PROJECT; HOWEVER, IT WILL BE SUBJECT TO ALL APPLICABLE FEDERAL AND STATE LAWS AND REGULATIONS. SOIL TO BE DISPOSED WILL BE TAKEN ONLY TO A CERTIFIED AND PERMITTED CALIFORNIA LANDFILL OR AN EQUIVALENT OUT–OF–STATE LANDFILL, AS APPROPRIATE AND AS DETERMINED BY THE WASTE PROFILE.

TRAFFIC CONTROL

1. TRAFFIC CONTROL

A. PRIOR TO BEGINNING ANY WORK ON EXISTING STREETS, ADVANCE WARNING SIGNS SHALL BE INSTALLED.

B. TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH CALTRANS "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES" CURRENT EDITION AND IS SUBJECT TO REVIEW AND APPROVAL BY THE LOCAL JURISDICTION. FAILURE TO COMPLY MAY RESULT IN IMMEDIATE STOPPAGE OF WORK UNTIL THE PROPER TRAFFIC CONTROL IS IN ORDER.

2. CONTRACTOR TO COORDINATE WITH NEIGHBORING PROPERTY OWNERS TO MAINTAIN ACCESS TO EXISTING BUILDING 101.

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STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB–PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
GENERAL NOTES

CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale N/A
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C1.2

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub–Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C1.2 NOTES.dwg
PLOT DATE: 08–12–15 PLOTTED BY: sarw

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Know what's **below.**
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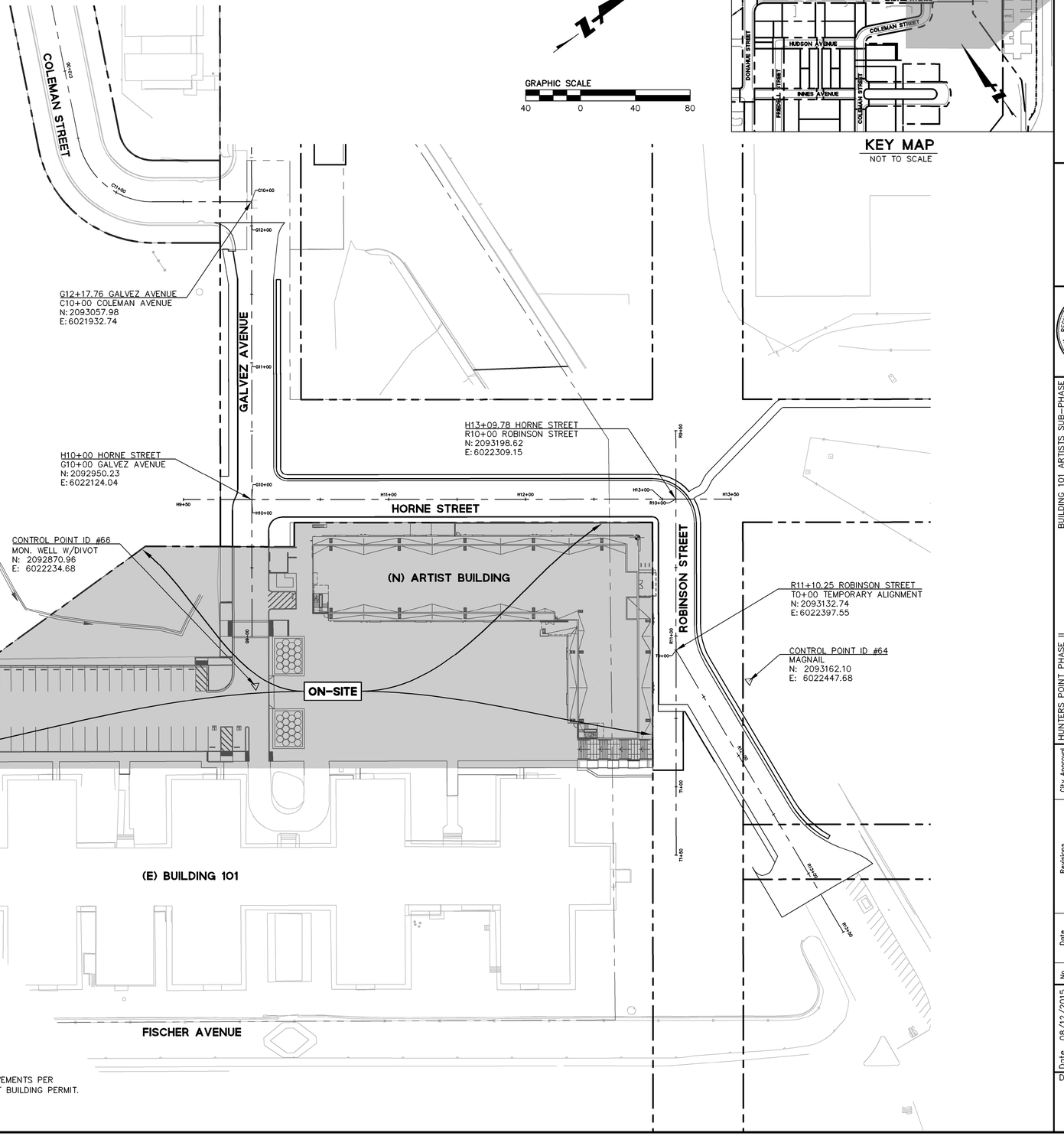

NOTE: ON-SITE FINAL IMPROVEMENTS PER ARTISTS' REPLACEMENT BUILDING PERMIT.

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BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
STATIONING AND SURVEY CONTROL

CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No. 20110162

Drawing Number:
C1.3

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C1.3 STATIONING AND SURVEY CONTROL.dwg
PLOT DATE: 08-12-15 PLOTTED BY: sarw

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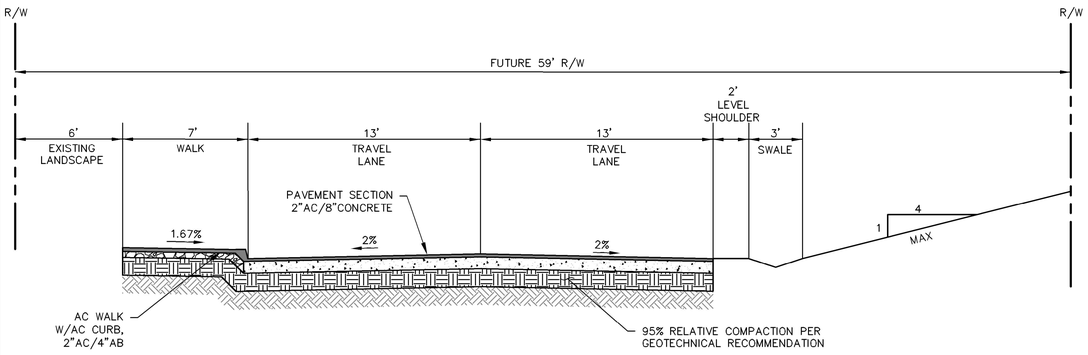
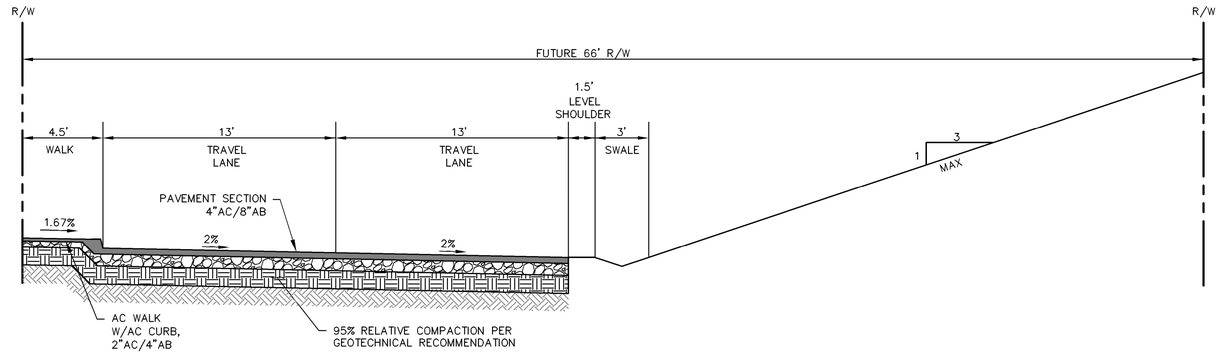


GALVEZ AVENUE

TYPICAL CROWN SECTION

NOT TO SCALE

FACING NORTHWEST

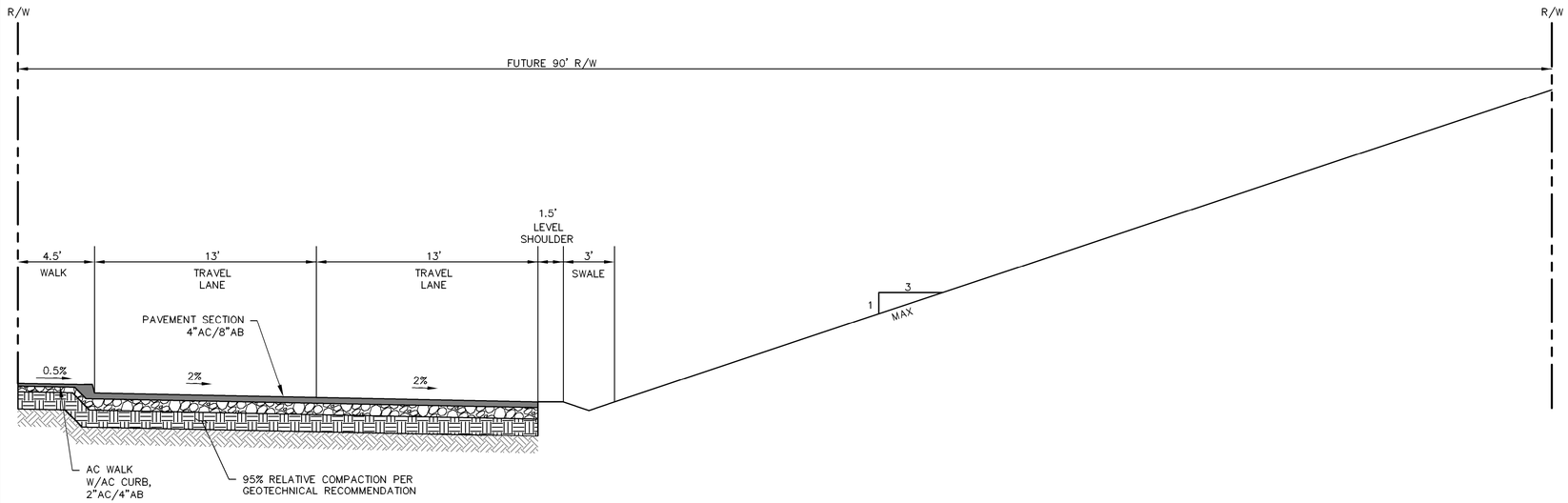


ROBINSON STREET

TYPICAL SECTION

NOT TO SCALE

FACING NORTHWEST

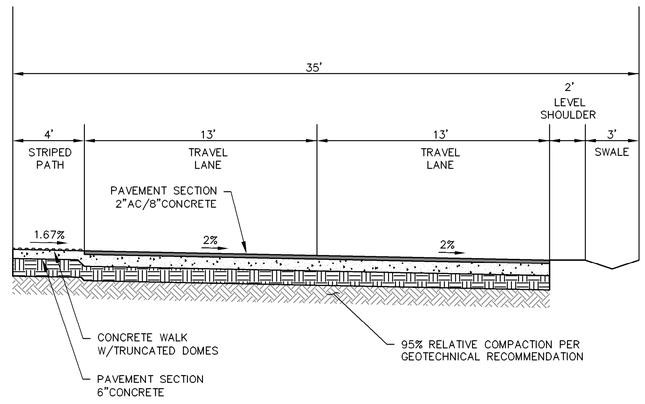


HORNE STREET

TYPICAL SECTION

NOT TO SCALE

FACING SOUTHWEST



ROBINSON STREET (HILL, TIE IN)

TYPICAL SECTION

NOT TO SCALE

FACING WEST

NOTE: REFER TO DETAIL SHEETS C10.1 FOR SURFACE TRANSITIONS AND C10.2 FOR ALL PAVEMENT SECTIONS.

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BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
TYPICAL STREET CROSS SECTIONS

CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

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Date 08/12/2015
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C1.4

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C1.4 TYPICAL STREET CROSS SECTIONS.dwg
PLOT DATE: 10-05-15 PLOTTED BY: chuk

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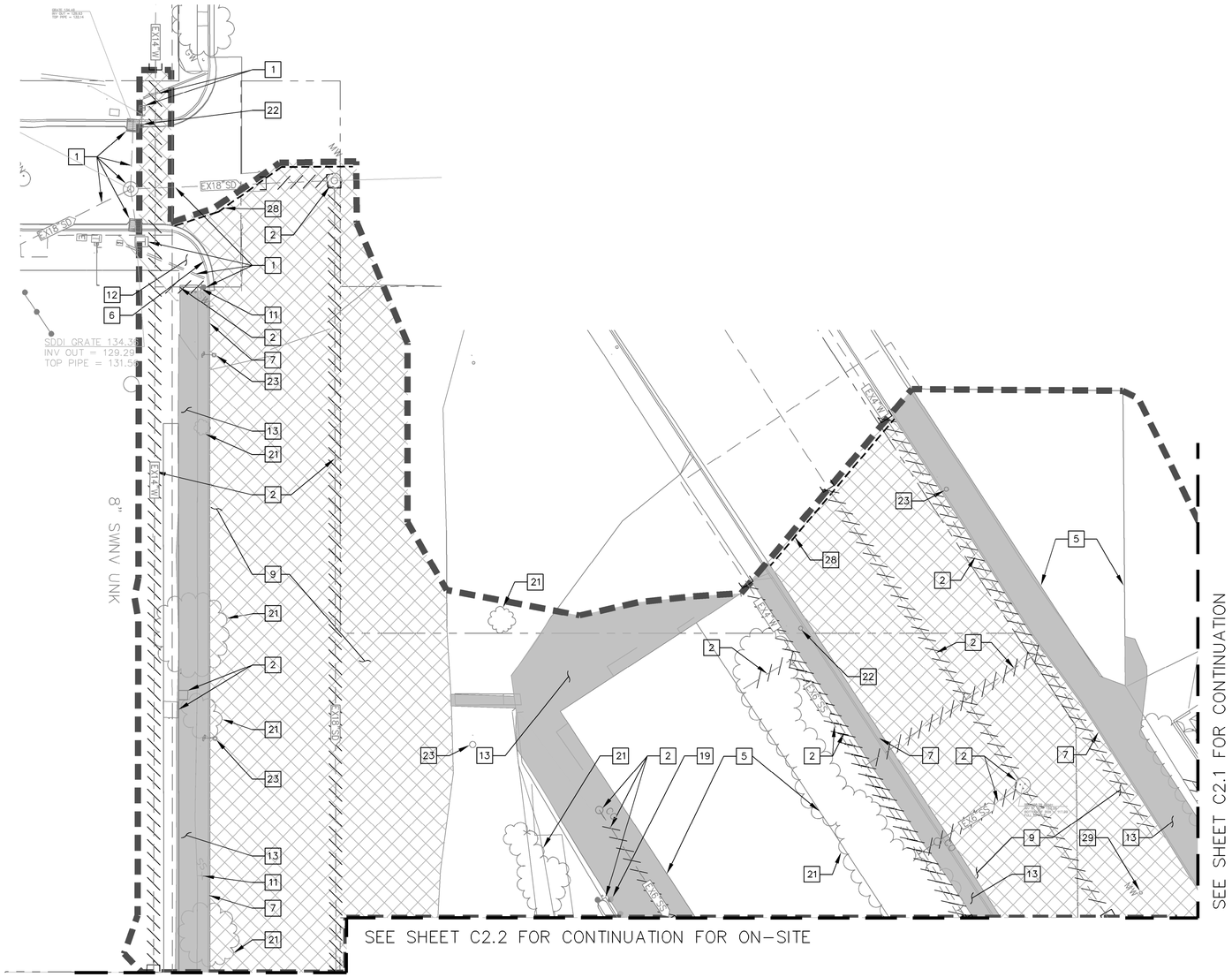

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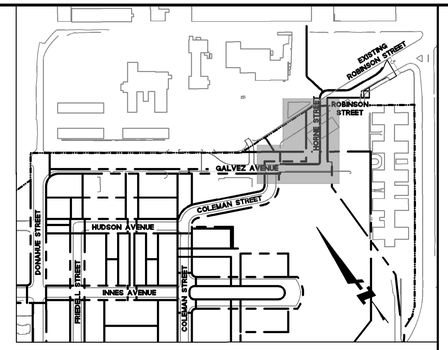

KEY MAP
NOT TO SCALE

DEMOLITION LEGEND

1 EXISTING UTILITY TO REMAIN, PROTECT IN PLACE
2 EXISTING UTILITY TO BE REMOVED/ABANDONED
3 EXISTING UTILITY TO BE RELOCATED (NEW LOCATION SHOWN ON UTILITY PLANS)
4 EXISTING BUILDING TO REMAIN, PROTECT IN PLACE
5 EXISTING BUILDING TO BE DEMOLISHED
6 EXISTING CURB/C&G TO REMAIN, PROTECT IN PLACE
7 EXISTING CURB/C&G TO BE REMOVED
8 EXISTING ASPHALTIC CONCRETE PAVEMENT TO REMAIN, PROTECT IN PLACE
9 EXISTING ASPHALTIC CONCRETE PAVEMENT TO BE REMOVED
10 EXISTING SIGN TO REMAIN, PROTECT IN PLACE
11 EXISTING SIGN TO BE REMOVED
12 EXISTING CONCRETE TO REMAIN, PROTECT IN PLACE
13 EXISTING CONCRETE TO BE REMOVED
14 EXISTING STRIPING TO REMAIN, PROTECT IN PLACE
15 EXISTING STRIPING TO BE REMOVED VIA GRINDING
16 EXISTING WALL/FENCE TO REMAIN, PROTECT IN PLACE
17 EXISTING WALL/FENCE TO BE REMOVED
18 EXISTING BOLLARDS TO REMAIN, PROTECT IN PLACE
19 EXISTING BOLLARDS TO BE REMOVED
20 EXISTING TREE/GROUND COVER TO REMAIN, PROTECT IN PLACE
21 EXISTING TREE/GROUND COVER TO BE REMOVED
22 EXISTING STREET LIGHT TO REMAIN, PROTECT IN PLACE
23 EXISTING STREET LIGHT/POWER POLE TO BE RELOCATED/REPLACED
24 EXISTING MONITORING WELL TO REMAIN, PROTECT IN PLACE
25 EXISTING STRUCTURE TO BE RELOCATED
26 ADJUST EXISTING UTILITY RIM TO NEW FINISHED GRADE
27 EXISTING MONUMENT TO REMAIN, PROTECT IN PLACE
28 SAWCUT EXISTING PAVEMENT (AC OR CONCRETE)
29 EXISTING GROUNDWATER MONITORING WELL TO BE REPLACED/RELOCATED PER THE DRAFT WORK PLAN TO CONDUCT RESTRICTED ACTIVITIES PREPARED BY GEOSYNTEC (SEE NOTE 5)

EXISTING CONCRETE TO BE REMOVED
EXISTING AC PAVEMENT TO BE REMOVED
EXISTING UTILITY TO BE REMOVED OR RELOCATED
LIMIT OF DEMOLITION
CAP OR PLUG
SAWCUT EDGE

DEMOLITION NOTES

1. CONTRACTOR'S ATTENTION IS DIRECTED TO THE GENERAL NOTES ON SHEET C1.1.
2. DEMOLITION ACTIVITIES ARE RESTRICTED TO WITHIN LIMIT OF DEMOLITION LINE.
3. EXISTING UTILITIES NOT SPECIFIED ON THIS PLAN TO BE REMOVED OR ABANDONED ARE TO REMAIN IN PLACE AND ARE NOT TO BE DISTURBED. IF DISCREPANCIES OCCUR BETWEEN THE UTILITIES SHOWN ON THIS PLAN AND THOSE WHICH EXIST IN THE FIELD, THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
4. PRIOR TO ABANDONMENT OR REMOVAL OF ANY EXISTING UTILITIES SUCH AS SS MAIN, SS LATERAL, WATER MAIN, AND WATER LATERAL, CONTRACTOR SHALL VERIFY THAT SAID MAIN OR LATERAL IS NOT ACTIVE.
5. ANY REPLACEMENT OR RELOCATION OF MONITORING WELLS SHALL BE RE-INSTALLED WITHIN 60 DAYS OF THE PRIOR WELL'S ABANDONMENT DATE UNLESS THE FFA SIGNATORIES GRANT AN EXTENSION. ALL ACTIVITIES RELATED TO ABANDONMENT, REPLACEMENT, MODIFICATIONS, OR RELOCATION OF MONITORING WELLS WILL BE OVERSEEN AND DIRECTED BY GEOSYNTEC CONSULTANTS.

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BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
EXISTING SURFACE AND UNDERGROUND DEMOLITION PLAN

CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
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Job No 20110162

Drawing Number:
C2.0

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C2.0-C2.1 EXISTING CONDITIONS AND DEMOLITION PLAN.dwg
PLOT DATE: 08-12-15 PLOTTED BY: chuk

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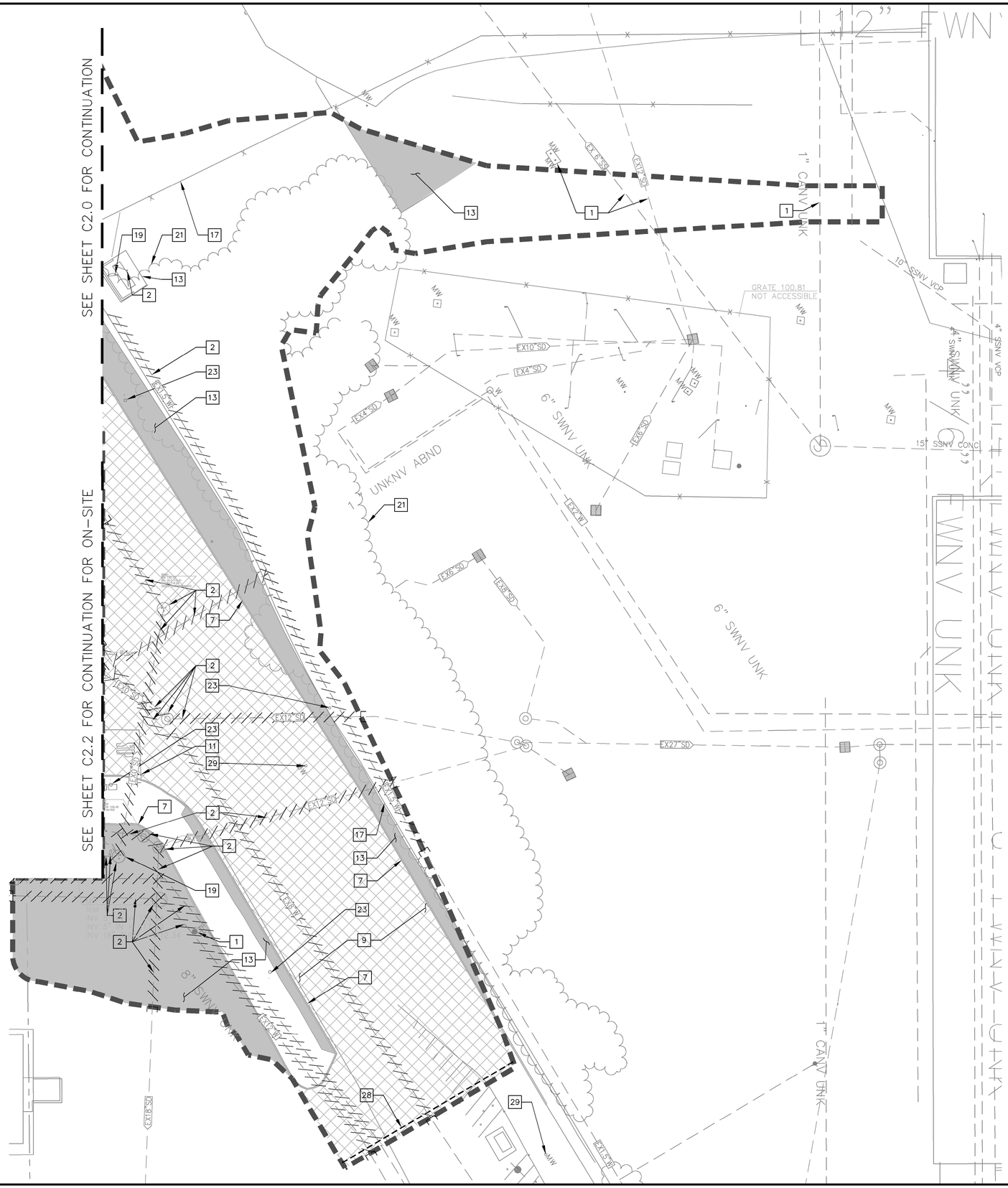

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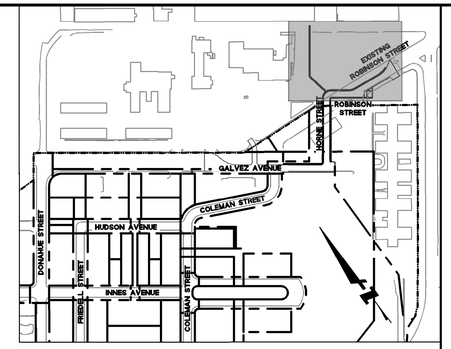

KEY MAP
NOT TO SCALE

DEMOLITION LEGEND

1. EXISTING UTILITY TO REMAIN, PROTECT IN PLACE
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28. SAWCUT EXISTING PAVEMENT (AC OR CONCRETE)
29. EXISTING GROUNDWATER MONITORING WELL TO BE REPLACED/RELOCATED PER THE DRAFT WORK PLAN TO CONDUCT RESTRICTED ACTIVITIES PREPARED BY GEOSYNTEC (SEE NOTE 5)

- EXISTING CONCRETE TO BE REMOVED
- EXISTING AC PAVEMENT TO BE REMOVED
- EXISTING UTILITY TO BE REMOVED OR RELOCATED
- LIMIT OF DEMOLITION
- CAP OR PLUG
- SAWCUT EDGE

DEMOLITION NOTES

1. CONTRACTOR'S ATTENTION IS DIRECTED TO THE GENERAL NOTES ON SHEET C1.1.
2. DEMOLITION ACTIVITIES ARE RESTRICTED TO WITHIN LIMIT OF DEMOLITION LINE.
3. EXISTING UTILITIES NOT SPECIFIED ON THIS PLAN TO BE REMOVED OR ABANDONED ARE TO REMAIN IN PLACE AND ARE NOT TO BE DISTURBED. IF DISCREPANCIES OCCUR BETWEEN THE UTILITIES SHOWN ON THIS PLAN AND THOSE WHICH EXIST IN THE FIELD, THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
4. PRIOR TO ABANDONMENT OR REMOVAL OF ANY EXISTING UTILITIES SUCH AS SS MAIN, SS LATERAL, WATER MAIN, AND WATER LATERAL, CONTRACTOR SHALL VERIFY THAT SAID MAIN OR LATERAL IS NOT ACTIVE.
5. ANY REPLACEMENT OR RELOCATION OF MONITORING WELLS SHALL BE RE-INSTALLED WITHIN 60 DAYS OF THE PRIOR WELL'S ABANDONMENT DATE UNLESS THE FFA SIGNATORIES GRANT AN EXTENSION. ALL ACTIVITIES RELATED TO ABANDONMENT, REPLACEMENT, MODIFICATIONS, OR RELOCATION OF MONITORING WELLS WILL BE OVERSEEN AND DIRECTED BY GEOSYNTEC CONSULTANTS.

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BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
EXISTING SURFACE AND UNDERGROUND DEMOLITION PLAN

CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
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Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C2.1

DRAWING NAME: J:\Engl\1101162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C2.0-C2.1 EXISTING CONDITIONS AND DEMOLITION PLAN.dwg
PLOT DATE: 08-12-15 PLOTTED BY: sarw

SHEET NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ALL NECESSARY PERMITS INCLUDING ENVIRONMENTAL REQUIREMENTS FOR REMOVAL AND DISPOSAL OF DEBRIS.
2. CONTRACTOR TO COORDINATE DEMO WORK WITH OTHER CONTRACT PACKAGES
   a. ARTIST PARCEL – DPW UTILITY PHASE 1 PERMIT PLANS
   b. COMMERCIAL KITCHEN – DBI PERMIT PLANS
3. CAP (E) UTILITIES.
4. DEMOLITION (E) BUILDING AND FOUNDATION, INCLUDING THE ASSOCIATED STAIRS, RAMPS, LOADING DOCKS, AND ALL BUILDING UTILITIES.
   NOTE: (E) BUILDING 110 CANNOT BE REMOVED UNTIL (N) COMMERCIAL KITCHEN IS FULLY OPERATIONAL.
5. (E) ABANDONED STEAM LINES ARE WRAPPED WITH ASBESTOS INSULATION. CONTRACTOR SHALL COORDINATE ABATEMENT OF (E) STEAM LINE WITH REQUIREMENTS IN THE "HAZARDOUS MATERIALS INSPECTION REPORT" DATED 3/30/15 PREPARED BY VBA, INC. AND THE OWNER. CONTRACTOR TO PROVIDE NECESSARY REMARK AND ABATEMENT, TESTING AND SAMPLING TO BE PROVIDED BY OWNER.
6. CONTRACTOR TO REMOVE ALL ABANDONED UTILITY VAULTS WITHIN THE LIMIT OF DEMOLITION, WHETHER SHOWN ON PLAN OR NOT.
7. CONTRACTOR TO REMOVE OR CONCRETE FILL ABANDONED UTILITY PIPINGS WITHIN THE LIMIT OF DEMOLITION. CONTRACTOR TO CAP REMAINING PORTION OF (E) UTILITIES AT LIMIT OF DEMOLITION, WHETHER SHOWN ON PLAN OR NOT. LIMIT OF DEMOLITION INCLUDES ON AND OFF SITE.

LEGENDS AND ABBREVIATIONS

A. EXISTING ITEMS TO BE REMOVED & DISPOSED OFF SITE INCLUDE, BUT IS NOT LIMITED TO THE FOLLOWING:

ITEM	SYMBOL	DESCRIPTION
A1		PCC PAVING & BASE
A2		CLEAR AND GRUB
A3		ASPHALT CONCRETE PAVEMENT & BASE
A4		CONCRETE CURB
A5		GRAVEL
A6		UTILITY TROUGH, COVER AND ABANDONED STEAM LINE
A7		SS TANKS, AND ASSOCIATED PUMPS, PIPING, STRUCTURES, & FOUNDATION
A8		(E) UTILITIES
A9		SHED, STRUCTURES
A10		TREES
A11		CHAIN LINK FENCE
A12		STREET LIGHTS
A13		UTILITY STRUCTURE
A14		VAULT

B. EXISTING ITEMS TO BE RELOCATED INCLUDE, BUT IS NOT LIMITED TO THE FOLLOWING:

B1		RELOCATE K-RAIL TO TOP OF SLOPE, SEE C6.03
B2		NOT USED

C. EXISTING ITEMS TO BE REMOVED & SALVAGED, AND COORDINATED WITH ITEM OWNER INCLUDE, BUT IS NOT LIMITED TO THE FOLLOWING:

C1		NOT USED
C2		NOT USED

D. EXISTING ITEMS TO REMAIN & BE PROTECTED INCLUDE, BUT IS NOT LIMITED TO THE FOLLOWING:

D1		(E) UTILITY STRUCTURES
D2		(E) UTILITIES

REFERENCE

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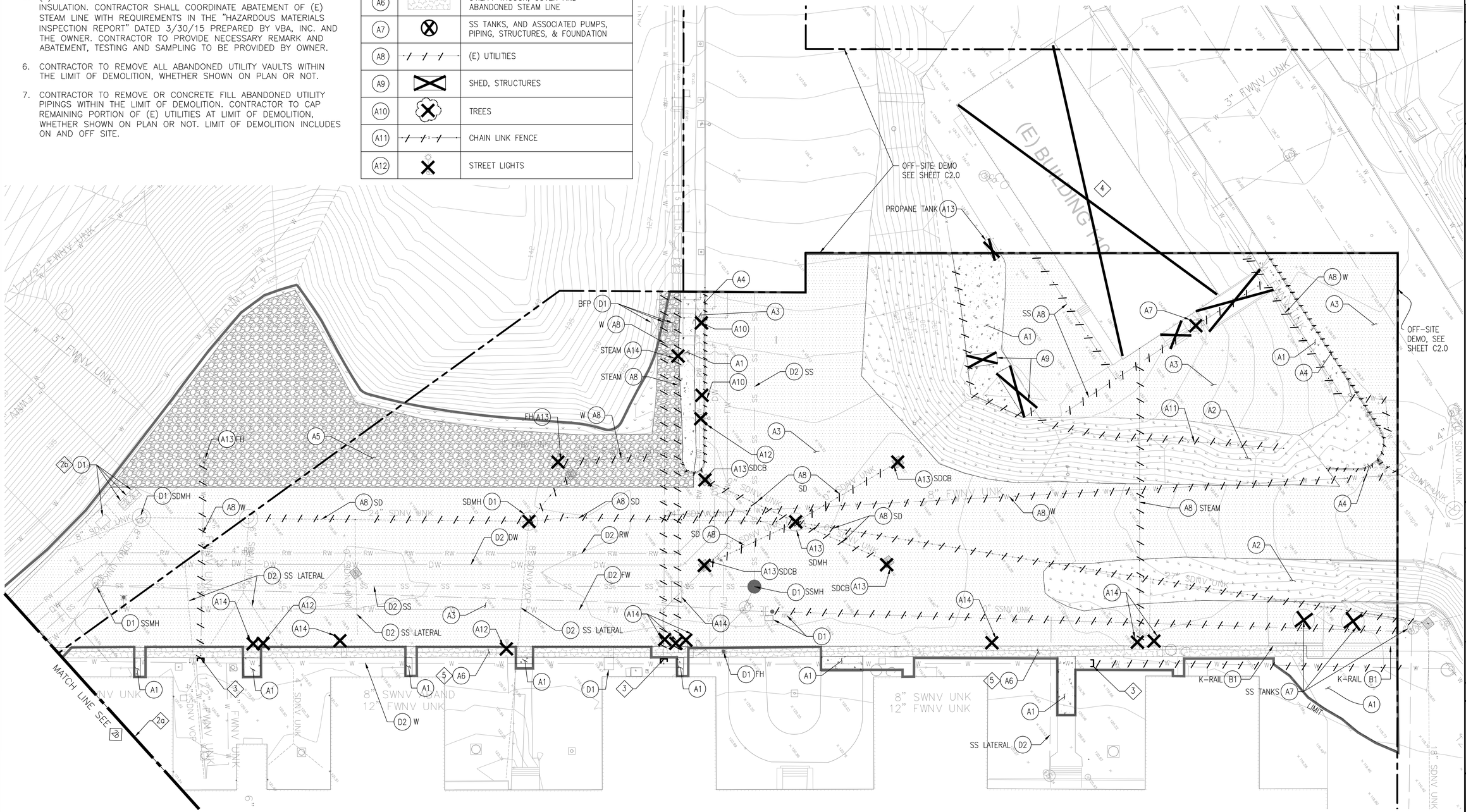
SCALE: 1" = 20



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REGISTERED PROFESSIONAL ENGINEER MEHNOR CHAIN No. C043842 Exp. 6/30/17 CIVIL STATE OF CALIFORNIA

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BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
SITE DEMOLITION PLAN

CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

Drawing Number:
C2.2
OF

DRAWING NAME: P:\13006.100_HPS2-CP Artist Building\3_Dwg_Artist Building\C2.2-DEMOLITION PLAN_MG&D.dwg
PLOT DATE: 08-10-15 PLOTTED BY: Joe

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Know what's **below.**
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LEGEND:

- RG = FG – 24" CUT
- RG = FG – 12" CUT
- RG = FG – 10" CUT
- RG = FG – 6" CUT
- RG = FG – FILL (VARIES)

OFF-SITE EARTHWORK QUANTITIES:

CUT	34,125 CUBIC YARDS
FILL	15 CUBIC YARDS
NET CUT	34,110 CUBIC YARDS

ON-SITE EARTHWORK QUANTITIES:

SEE SHEET C3.2

OFF-SITE & ON-SITE TOTAL EARTHWORK QUANTITIES:

CUT	55,695 CUBIC YARDS
FILL	96 CUBIC YARDS
NET CUT	55,791 CUBIC YARDS

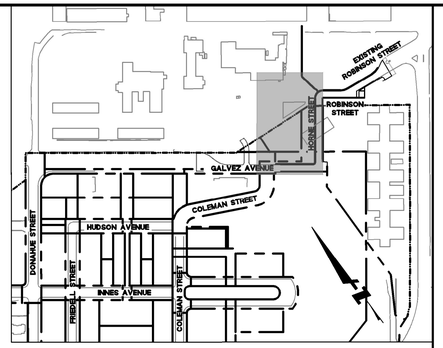
IMPORT QUANTITY FOR CAP RESTORATION:

OFF-SITE	9,228 CUBIC YARDS
ON-SITE	304 CUBIC YARDS
NET	9,532 CUBIC YARDS

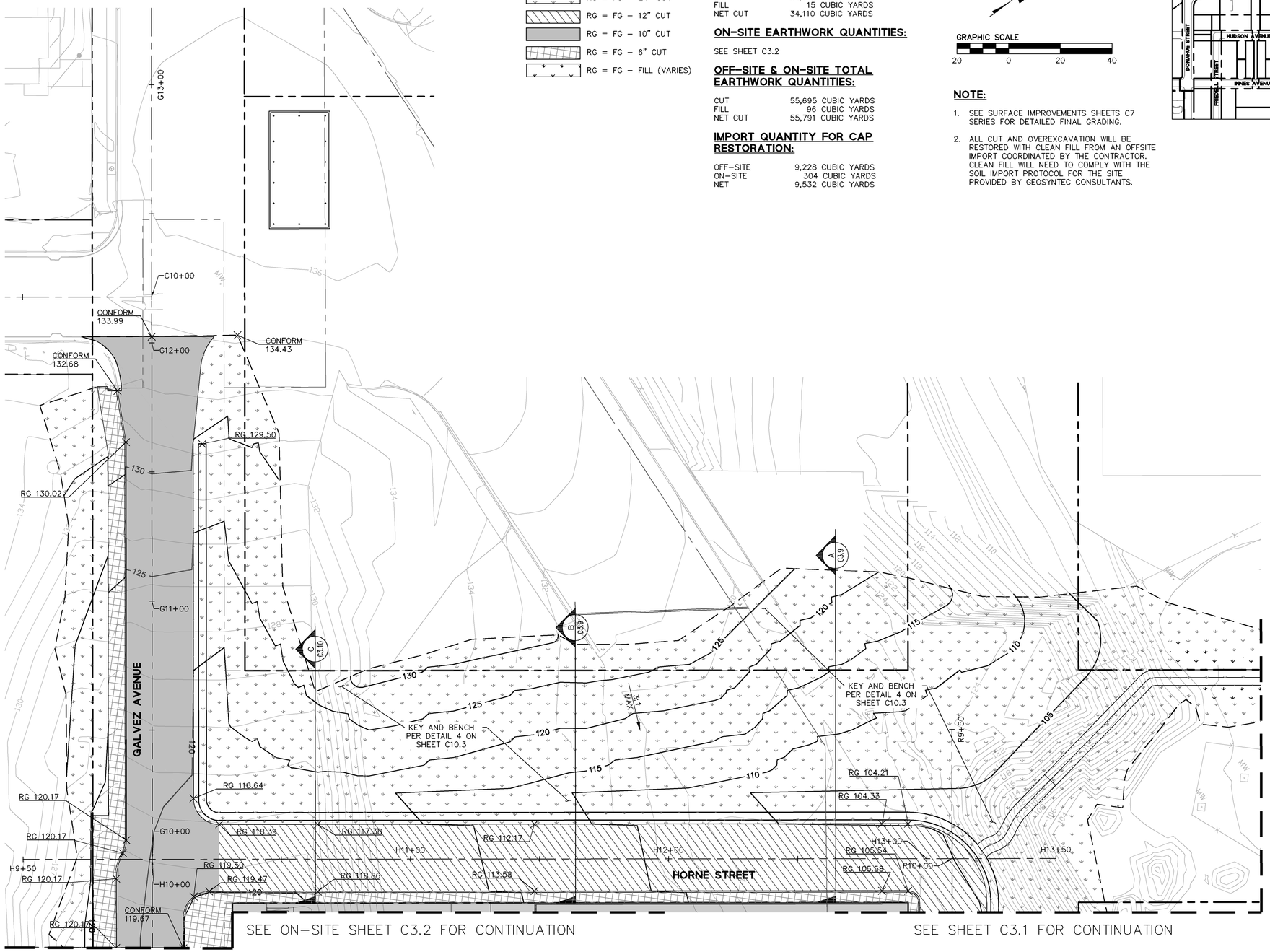
GRAPHIC SCALE
20 0 20 40

NOTE:

1. SEE SURFACE IMPROVEMENTS SHEETS C7 SERIES FOR DETAILED FINAL GRADING.
2. ALL CUT AND OVEREXCAVATION WILL BE RESTORED WITH CLEAN FILL FROM AN OFFSITE IMPORT COORDINATED BY THE CONTRACTOR. CLEAN FILL WILL NEED TO COMPLY WITH THE SOIL IMPORT PROTOCOL FOR THE SITE PROVIDED BY GEOSYNTEC CONSULTANTS.



KEY MAP
NOT TO SCALE



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CHARLES J. PLIMPTON
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STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
ROUGH GRADING PLAN

CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

Date 06/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C3.0

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C3.0-C3.4 MASS GRADING PLAN.dwg
PLOT DATE: 10-06-15 PLOTTED BY: chuk

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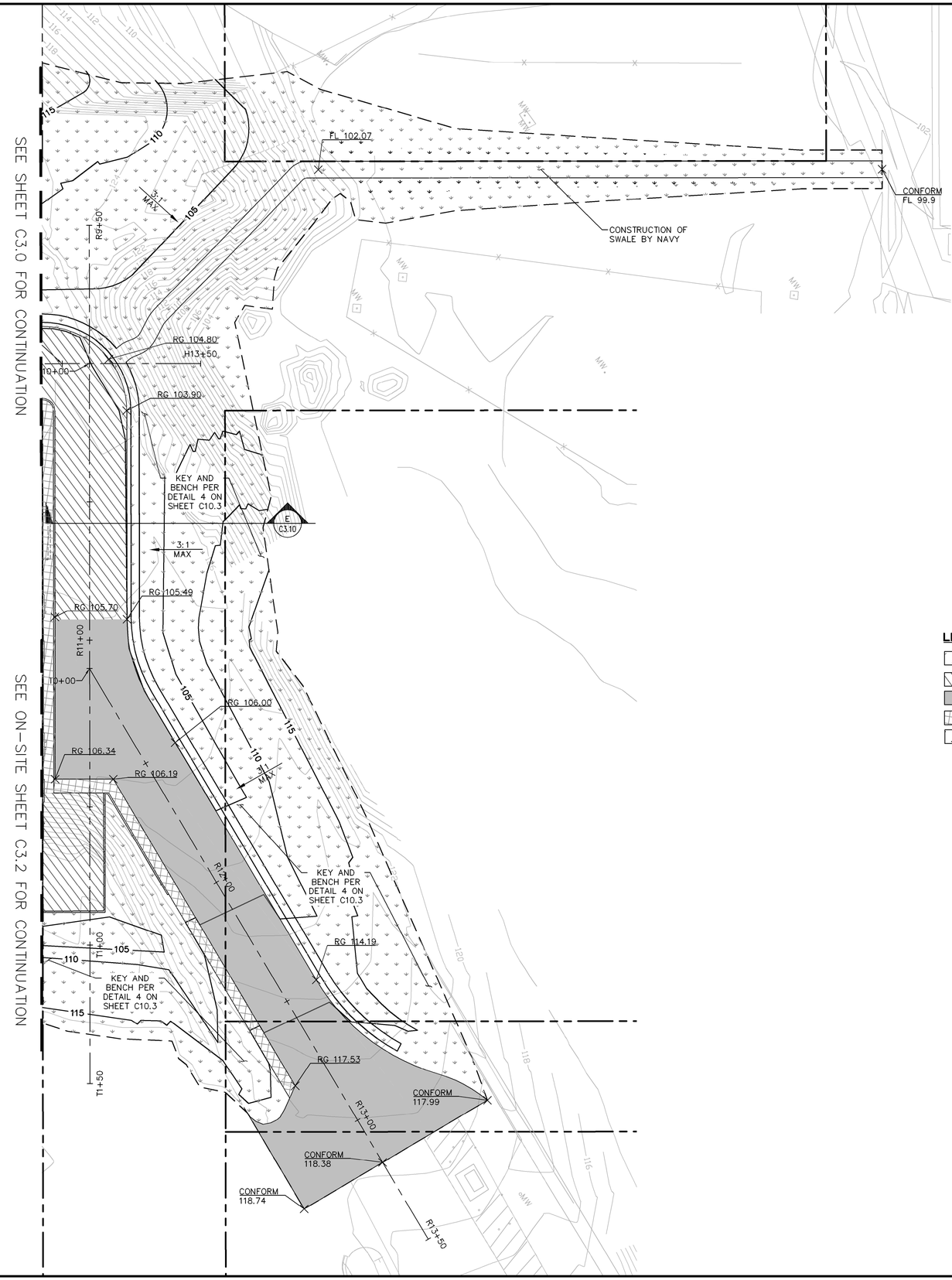

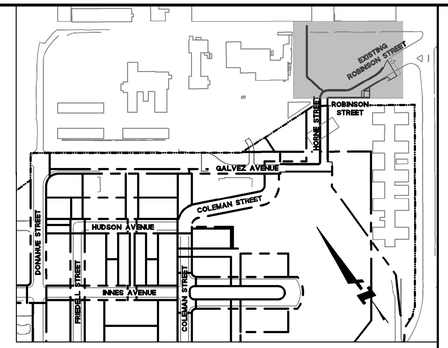

KEY MAP
NOT TO SCALE

GRAPHIC SCALE
20 0 20 40

NOTE:

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LEGEND:

- RG = FG – 24" CUT
- RG = FG – 12" CUT
- RG = FG – 10" CUT
- RG = FG – 6" CUT
- RG = FG – FILL (VARIES)

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NET CUT	34,110 CUBIC YARDS

ON-SITE EARTHWORK QUANTITIES:

SEE SHEET C3.2

OFF-SITE & ON-SITE TOTAL EARTHWORK QUANTITIES:

CUT	55,695 CUBIC YARDS
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ARTISTS PARCEL
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ROUGH GRADING PLAN

CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C3.1

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C3.0-C3.4 MASS GRADING PLAN.dwg
PLOT DATE: 10-06-15 PLOTTED BY: chuk

EARTHWORK NOTES:

1. SEE GEOTECHNICAL AND EARTHWORK GRADING NOTES ON C1.1.
2. CONTRACTOR SHALL PROVIDE PROPER SHORING OR TEMPORARY SLOPE, INCLUDING POSSIBLE SURCHARGE FROM CONSTRUCTION ACTIVITIES, DURING EXCAVATION OPERATION.
3. EXCAVATION:
   A. EXCAVATE AND FILL TO SUBGRADE ELEVATION. SUBGRADE ELEVATION SHALL BE THE THICKNESS OF THE STRUCTURAL SECTION BELOW THE FINISHED GRADE, AS SHOWN IN LEGEND & ABBREVIATIONS.
   B. AFTER EXCAVATION, AND PRIOR TO NEW FILL PLACEMENT, ALL SUBGRADES BENEATH AREAS TO RECEIVE FILL SHOULD BE CHECKED TO ASSURE THAT NO EXCESSIVE WEAVING, SOFT SPOTS AND OLD FILL IS PRESENT. REPAIR OR OVEREXCAVATE AS REQUIRED TO CORRECT SUCH DEFICIENCY.
   C. UNLESS OTHERWISE NOTED, ANY EXPOSED SUBGRADE THAT WILL RECEIVE FILL, SLABS-ON-GRADE OR PAVEMENT SHOULD BE PREPARED BY SCARIFYING TO A DEPTH OF 12-INCH AND MOISTURE-CONDITIONING TO A MOISTURE CONTENT TO AT LEAST 2% ABOVE THE OPTIMUM MOISTURE CONTENT OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE MOISTURE-CONDITIONED MATERIAL SHOULD THEN BE COMPACTED TO AT LEAST 95% RELATIVE COMPACTION, OR AS SPECIFIED IN ENGEO'S GEOTECH REPORT.
4. THE FOLLOWING ON-SITE EARTHWORK QUANTITIES AND AREAS ARE APPROXIMATE AND SHALL NOT BE USED FOR BIDDING PURPOSES. FOR TOTAL OFF-SITE QUANTITIES AND TOTAL CUT/FILL QUANTITIES, SEE C3.0. ALL QUANTITIES SUBJECT TO CHANGE, AND ALL QUANTITIES TO BE FIELD VERIFIED BASED ON FINAL CONDITION OF SITE AND CONTRACTOR'S MEANS AND METHODS. STRUCTURAL FOOTINGS, LANDSCAPE AND UTILITIES TRENCHING ARE NOT PART OF THIS PACKAGE AND IS NOT INCLUDED.

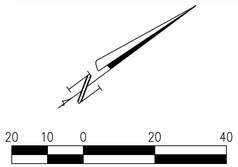
PROPOSED CUT	=	21,570	CY
PROPOSED FILL	=	81	CY
NET	=	21,489	CY CUT
AREA BEING DISTURBED	=	89,362	SF

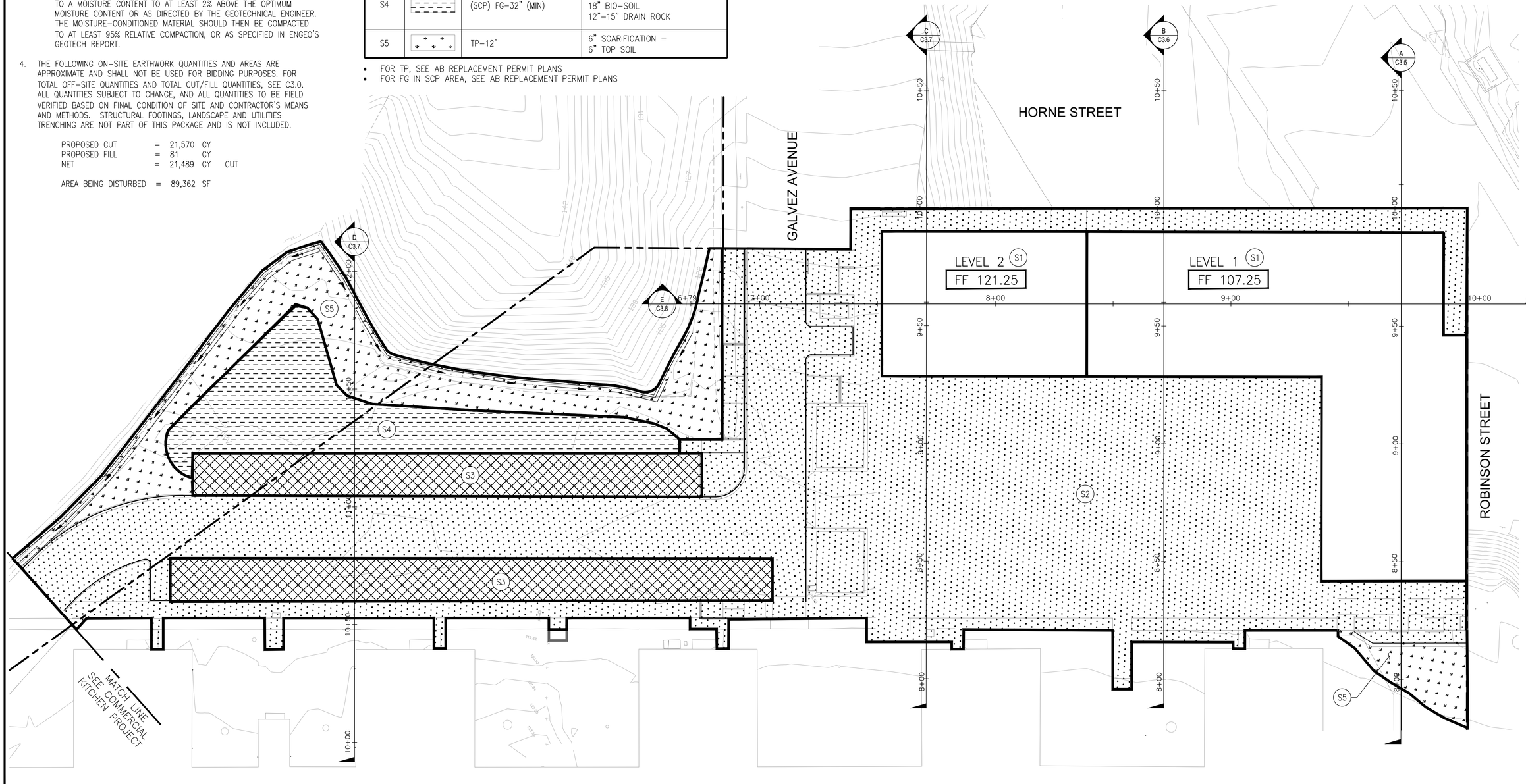
ROUGH GRADING LEGEND & ABBREVIATIONS:

	LEGEND	DESCRIPTION	DETAIL
S1	BLDG	FF-11" (LEVEL 1) FF-4'11" (LEVEL 2)	- 5" SLAB - 6" AGG. BASE - 4' (LEVEL 2 ONLY) TO REDUCE DIFFERENTIAL FILL TO NO MORE THAN 10' BETWEEN LEVEL 1 & LEVEL 2
S2		TP-10"	ROAD WAY -2"AC -8"PCC S/W -4"PCC -6"AB PLAZA -6"PCC -4"AB
S3		TP-13"	- 3" AC - 10" AB
S4		(SCP) FG-32" (MIN)	2" MULCH 18" BIO-SOIL 12"-15" DRAIN ROCK
S5		TP-12"	6" SCARIFICATION - 6" TOP SOIL

- FOR TP, SEE AB REPLACEMENT PERMIT PLANS
- FOR FG IN SCP AREA, SEE AB REPLACEMENT PERMIT PLANS

REFERENCE





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BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II
CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
ROUGH GRADING PLAN

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design MC
Drawn AN
Approved MC
Job No 20110162

Drawing Number:
C3.2
OF

DRAWING NAME: P:\13006.100_HPS2-CP Artist Building\3_Dwg_Artist Building\C3.2-ROUGH GRADING PLAN_MG&D.dwg
PLOT DATE: 10-06-15 PLOTTED BY: Doug

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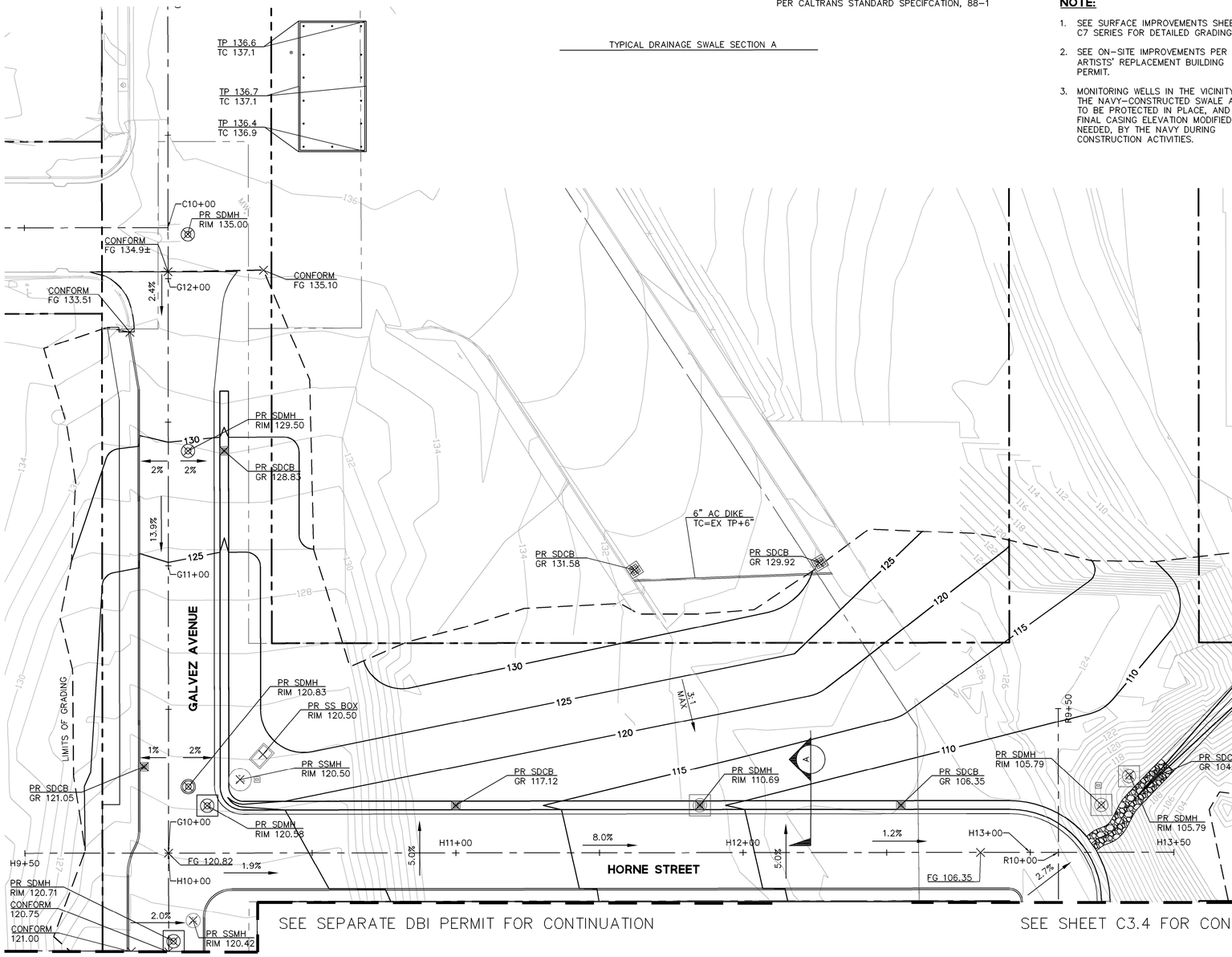
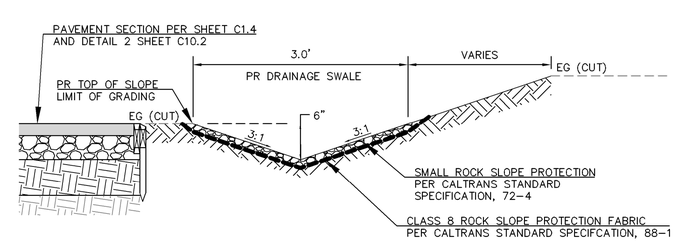


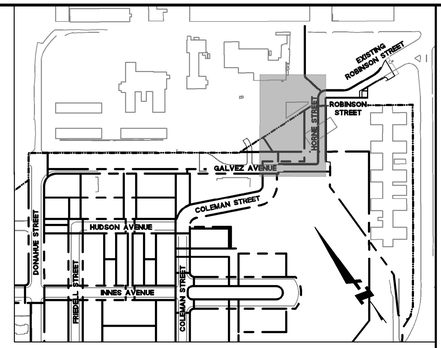


TYPICAL DRAINAGE SWALE SECTION A

GRAPHIC SCALE
20 0 20 40

NOTE:

1. SEE SURFACE IMPROVEMENTS SHEETS C7 SERIES FOR DETAILED GRADING.
2. SEE ON-SITE IMPROVEMENTS PER ARTISTS' REPLACEMENT BUILDING PERMIT.
3. MONITORING WELLS IN THE VICINITY OF THE NAVY-CONSTRUCTED SWALE ARE TO BE PROTECTED IN PLACE, AND FINAL CASING ELEVATION MODIFIED IF NEEDED, BY THE NAVY DURING CONSTRUCTION ACTIVITIES.



KEY MAP
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BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II
CITY AND COUNTY OF SAN FRANCISCO

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
FINAL GRADING PLAN

CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C3.3

DRAWING NAME: J:\Engl\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C3.0-C3.4 MASS GRADING PLAN.dwg
PLOT DATE: 10-06-15 PLOTTED BY: chuk

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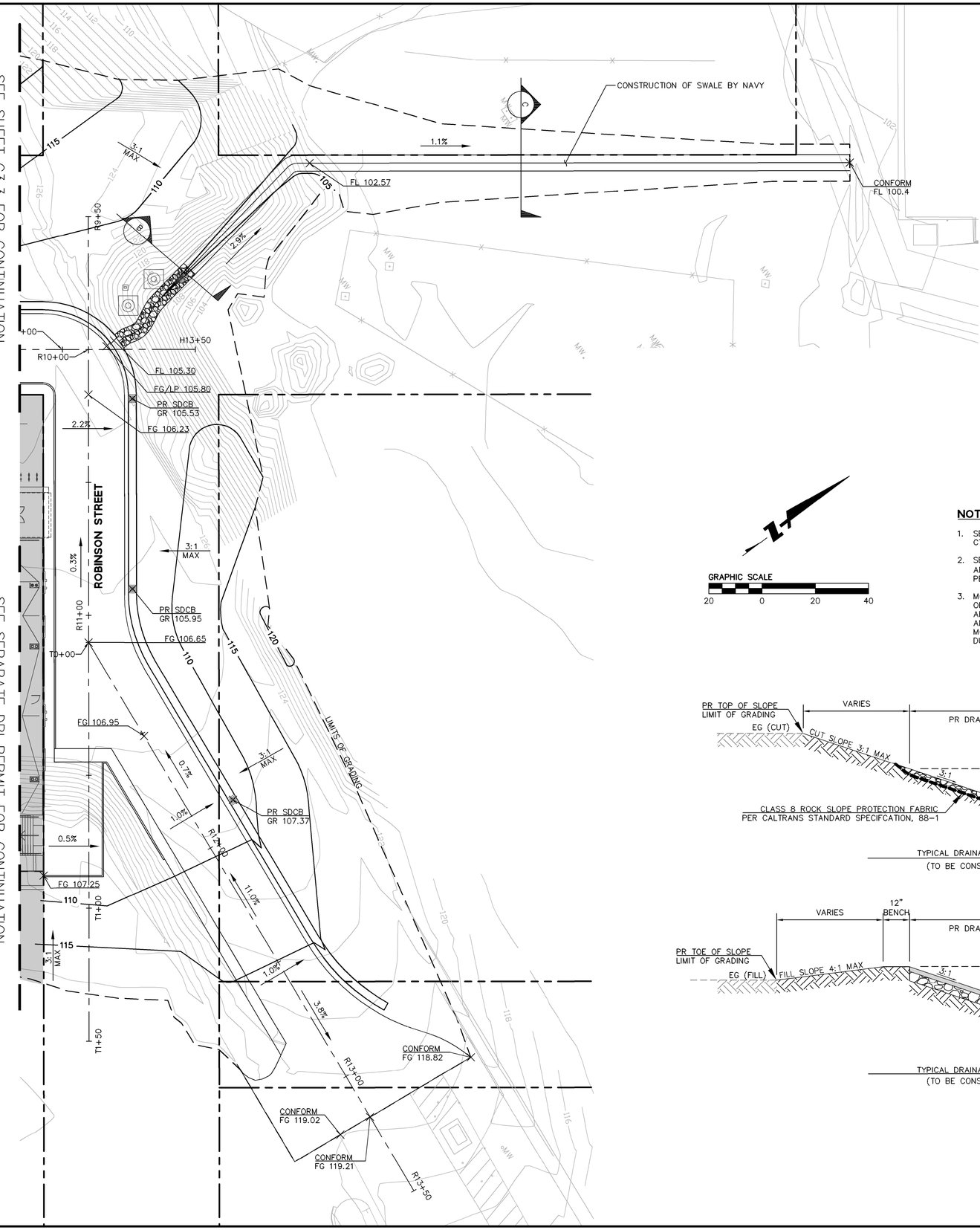

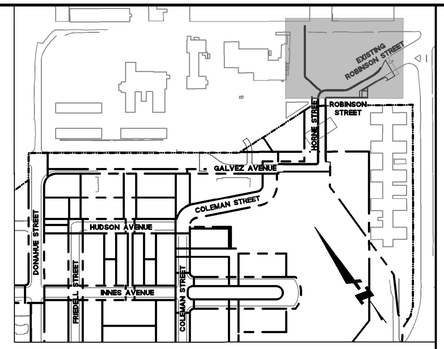

KEY MAP
NOT TO SCALE

GRAPHIC SCALE
20 0 20 40

NOTE:

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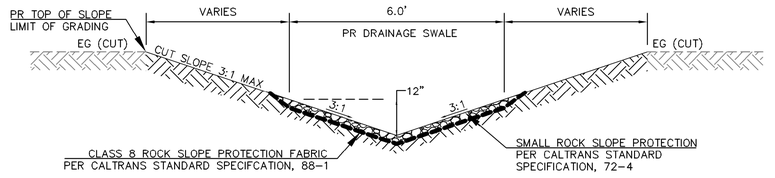
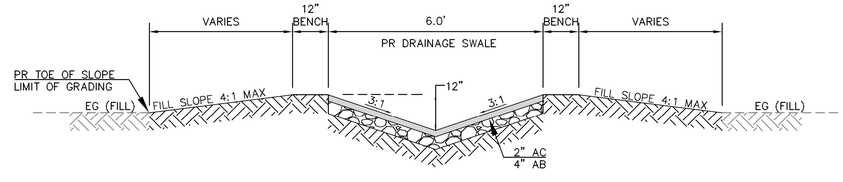


TYPICAL DRAINAGE SWALE SECTION B
(TO BE CONSTRUCTED BY NAVY)



TYPICAL DRAINAGE SWALE SECTION C
(TO BE CONSTRUCTED BY NAVY)

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ARTISTS PARCEL
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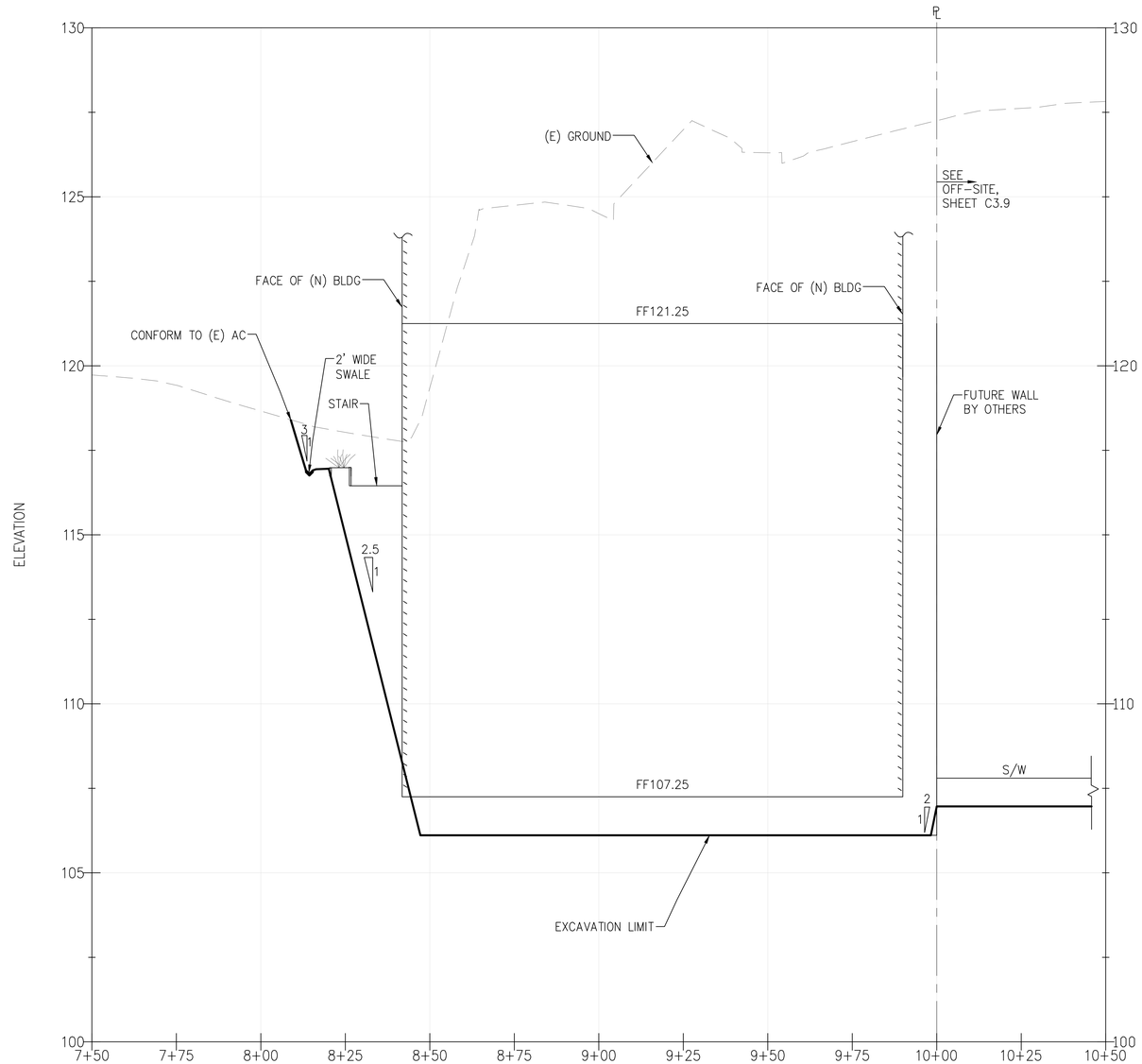
FINAL GRADING PLAN
CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C3.4

DRAWING NAME: J:\Eng11\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C3.0-C3.4 MASS GRADING PLAN.dwg
PLOT DATE: 10-06-15 PLOTTED BY: chuk



A / C3.2 **SECTION**
HOR: 1"=20'
VERT: 1"=2'

SHEET NOTES

1. SEE C3.2 FOR ROUGH GRADING NOTES.

2 1 0 2 4
SCALE: 1" = 2' VER

20 10 0 20 40
SCALE: 1" = 20' HOR

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STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II
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MASS GRADING, DEMO, & UTILITY PLANS
ROUGH GRADING SECTIONS
CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design MC
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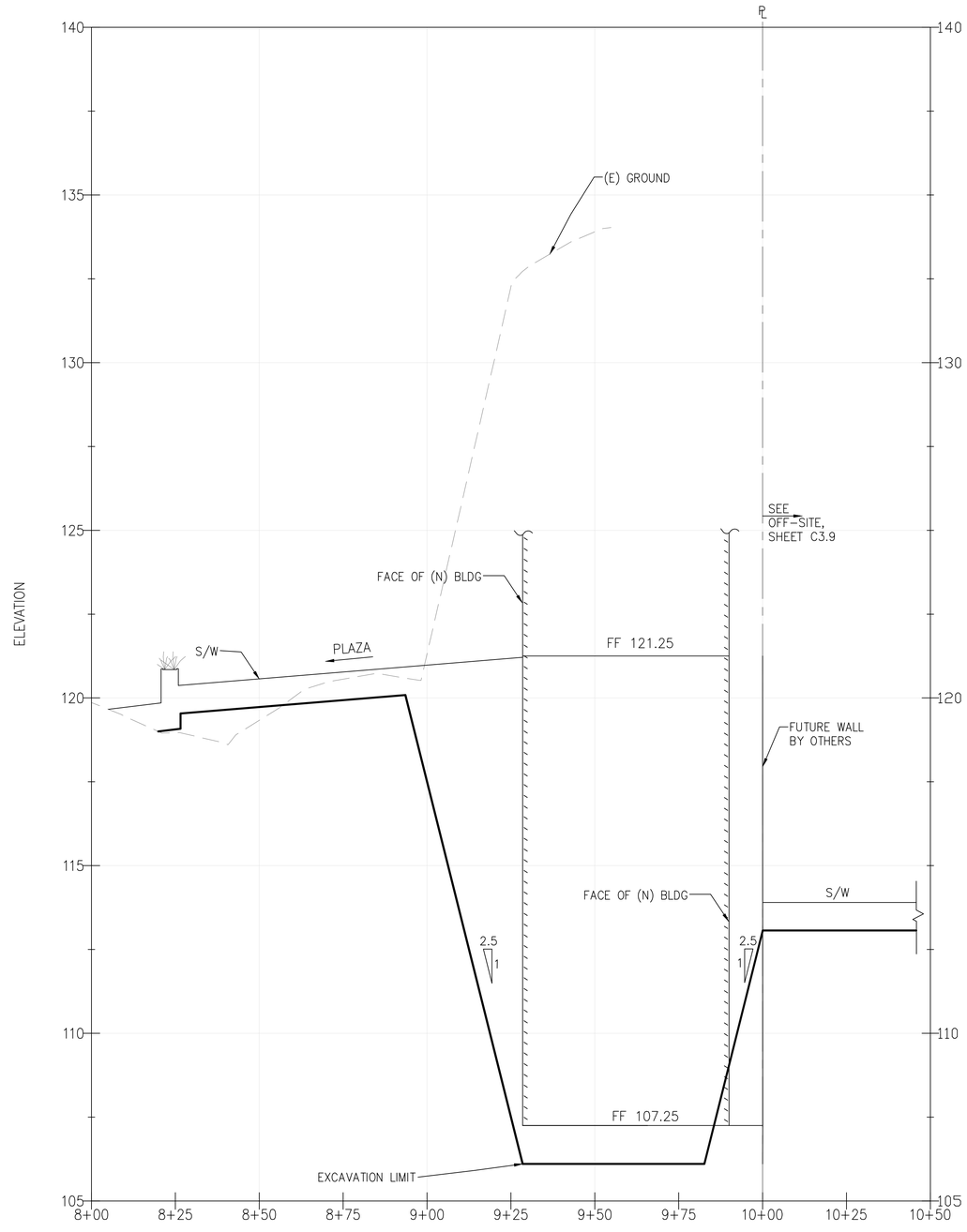
Job No 20110162

Drawing Number:
C3.5
OF

DRAWING NAME: P:\13006.100_HPS2-CP Artist Building\3_Dwg_Artist Building\C3.5-ROUGH GRADING SECTIONS_MC&D.dwg
PLOT DATE: 09-29-15 PLOTTED BY: Joe



B / C3.2 **SECTION**
HOR: 1"=20'
VERT: 1"=2'

SHEET NOTES

1. SEE C3.2 FOR ROUGH GRADING NOTES.

2 1 0 2 4
SCALE: 1" = 2' VER

20 10 0 20 40
SCALE: 1" = 20' HOR

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ROUGH GRADING SECTIONS

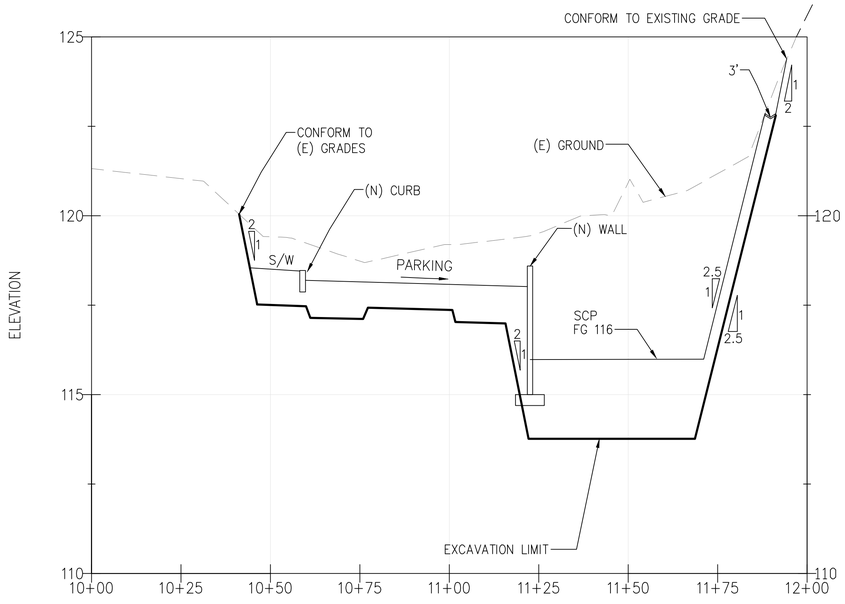
CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

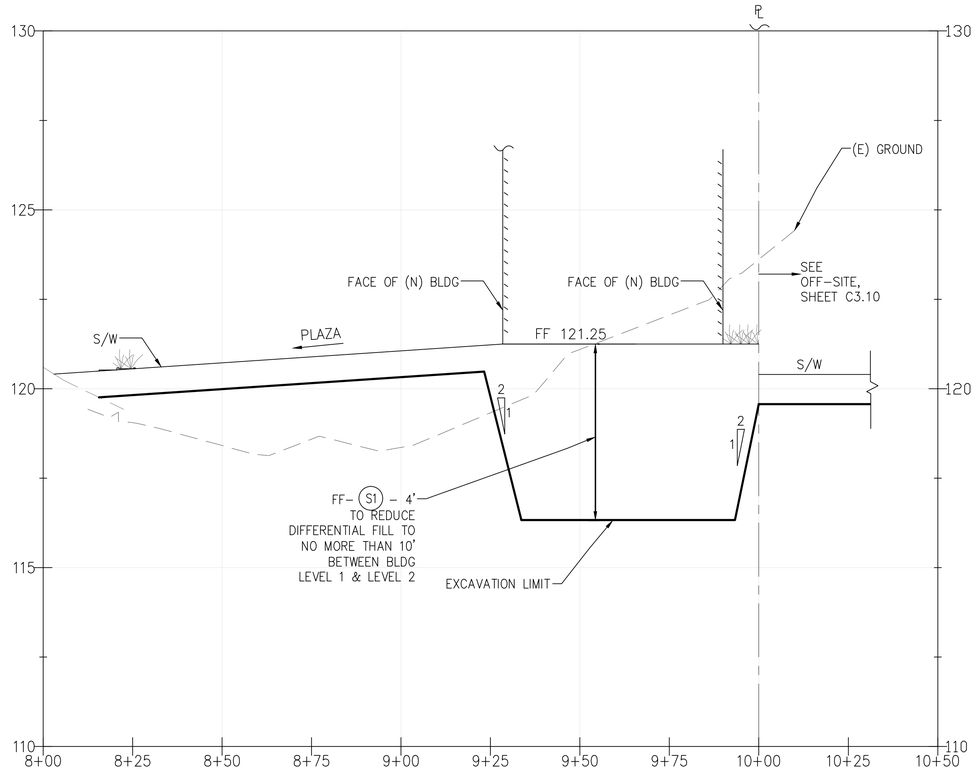
Date 06/12/2015
Scale AS SHOWN
Design MC
Drawn AN
Approved MC
Job No 20110162

Drawing Number:
C3.6
OF

DRAWING NAME: P:\13006.100_HPS2-CP Artist Building\3_Dwg_Artist Building\C3.5-ROUGH GRADING SECTIONS_MC&D.dwg
PLOT DATE: 09-29-15 PLOTTED BY: Joe



D C3.2 **SECTION**
HOR: 1"=20'
VERT: 1"=2'



C C3.2 **SECTION**
HOR: 1"=20'
VERT: 1"=2'

SHEET NOTES

1. SEE C3.2 FOR ROUGH GRADING NOTES.

2 1 0 2 4
SCALE: 1" = 2' VER

20 10 0 20 40
SCALE: 1" = 20' HOR

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Scale AS SHOWN
Design MC
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Approved MC
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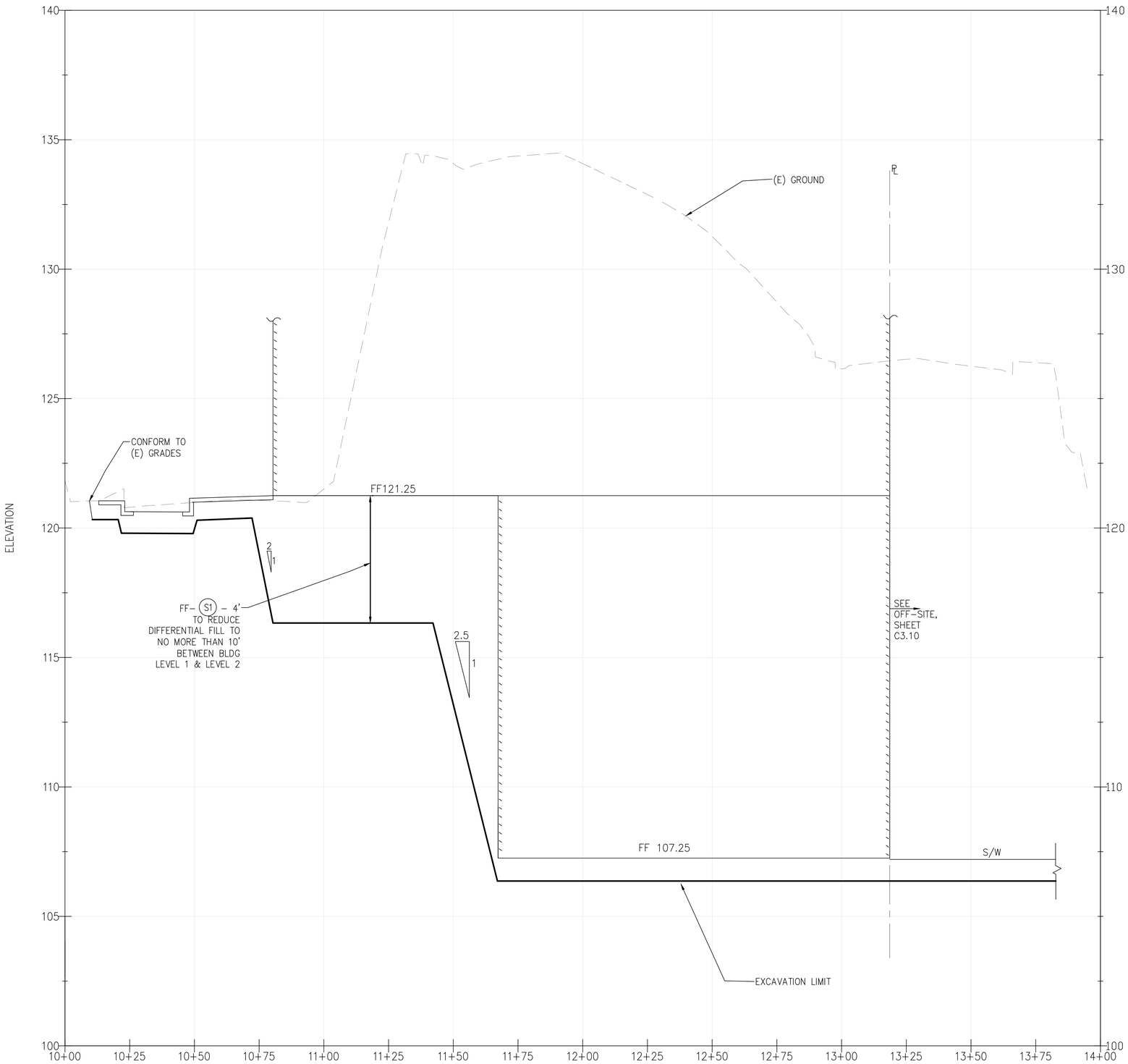
Drawing Number:
C3.7
OF

DRAWING NAME: P:\13006.100_HPS2-CP Artist Building\3_Dwg_Artist Building\C3.5-ROUGH GRADING SECTIONS_MC&D.dwg
PLOT DATE: 09-30-15 PLOTTED BY: Joe



E / C3.2 **SECTION**
HOR: 1"=20'
VERT: 1"=2'

SHEET NOTES

1. SEE C3.2 FOR ROUGH GRADING NOTES.

2 1 0 2 4
SCALE: 1" = 2' VER

20 10 0 20 40
SCALE: 1" = 20' HOR

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Exp. 6/30/17
CIVIL
STATE OF CALIFORNIA

HUNTERS POINT PHASE II — BUILDING 101 ARTISTS SUB-PHASE

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
ROUGH GRADING SECTIONS

CITY AND COUNTY OF SAN FRANCISCO — CALIFORNIA

No.	Date	Revisions	City Approval

Date 06/12/2015
Scale AS SHOWN
Design MC
Drawn AN
Approved MC
Job No 20110162

Drawing Number:
C3.8
OF

DRAWING NAME: P:\13006.100_HPS2-CP Artist Building\3_Dwg_Artist Building\C3.5-ROUGH GRADING SECTIONS_MC&D.dwg
PLOT DATE: 09-30-15 PLOTTED BY: Joe

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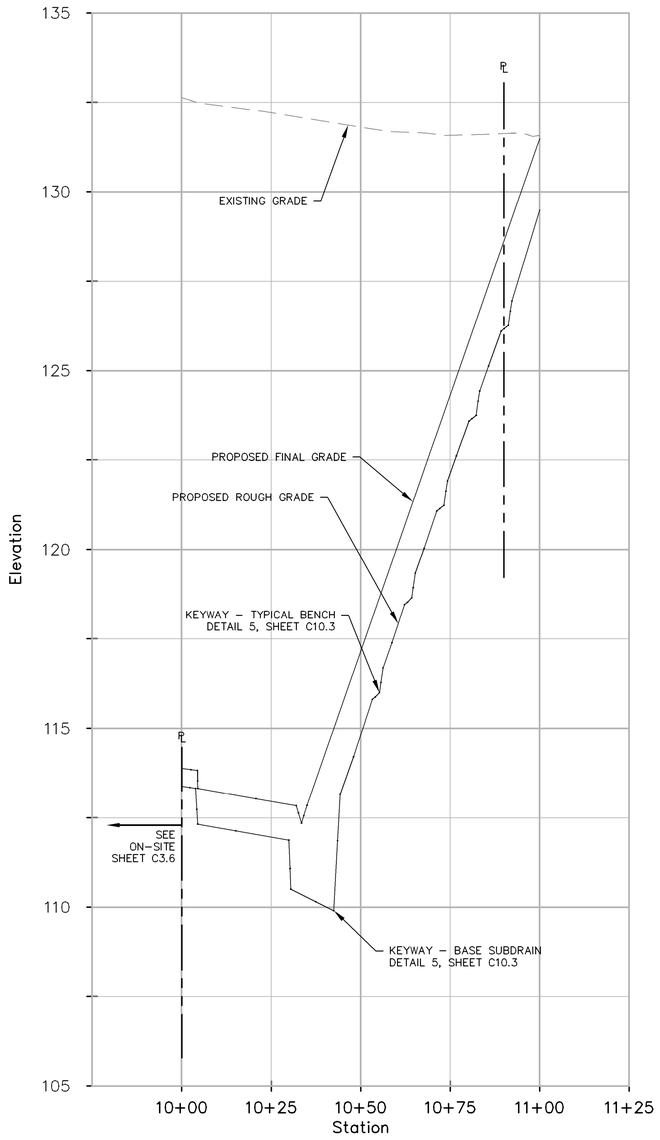
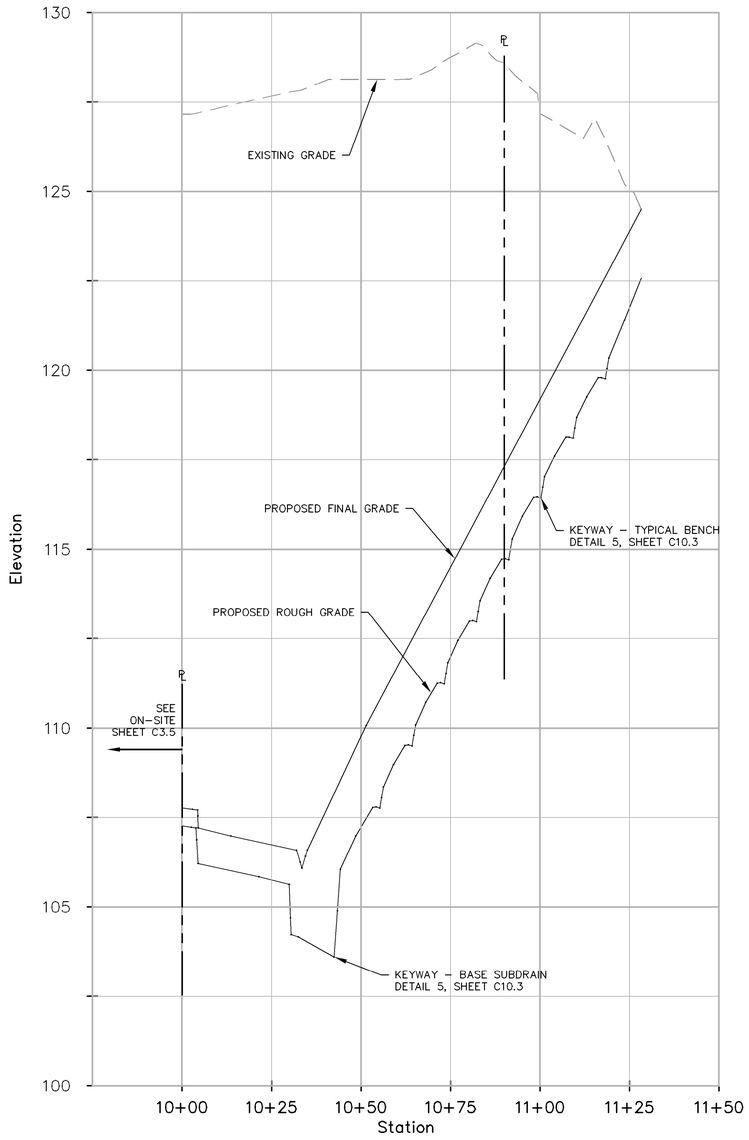


B / C3.0 **SECTION B**

HORNE STREET

HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'



A / C3.0 **SECTION A**

HORNE STREET

HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'

NOTES:

1. MINIMUM 2' OF CLEAN, IMPORT FILL BETWEEN PROPOSED ROUGH GRADE AND FINAL GRADE TO BE PLACED AND COMPACTED BY CONTRACTOR. SEE DETAILS 4 AND 5 ON SHEET C10.3 FOR KEYWAY INFORMATION. CONTRACTOR TO COORDINATE WITH GEOTECHNICAL ENGINEER.
2. SEE DETAIL 3 ON SHEET C9.4 FOR DURABLE COVER DETAIL. REFER TO ANALYSIS BY GEOSYNTEC CONSULTANTS FOR ADDITIONAL INFORMATION AND SPECIFICATIONS.

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LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER
CHARLES J. PLIMPTON
No. 53325
CIVIL
STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
FINAL & ROUGH GRADING PROFILES

CITY AND COUNTY OF SAN FRANCISCO, CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C3.9

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C3.9-C3.10 Grading Surface Sections.dwg
PLOT DATE: 10-06-15 PLOTTED BY: chuk

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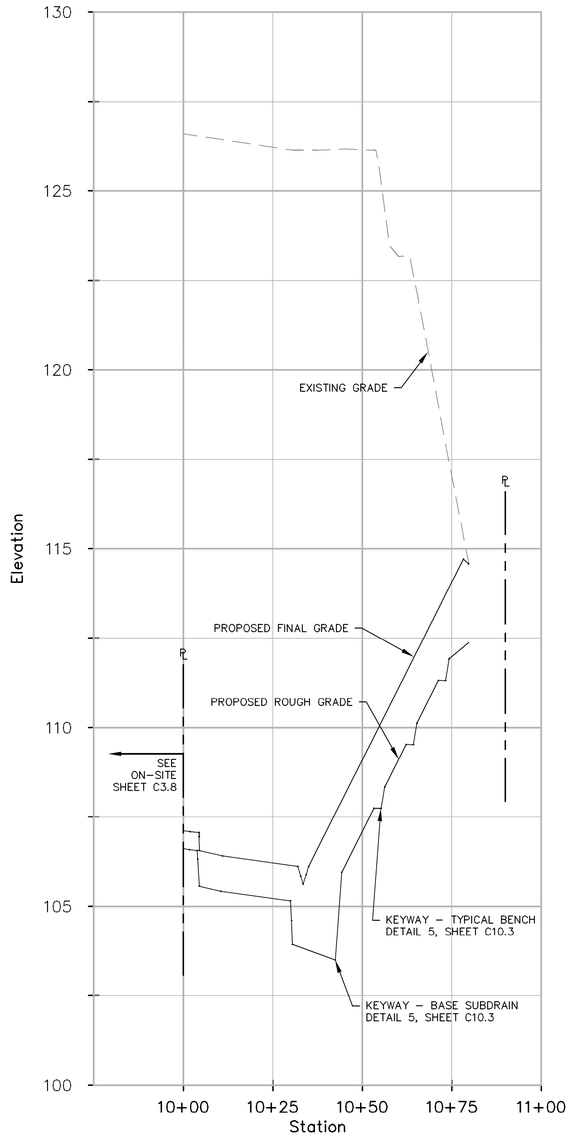
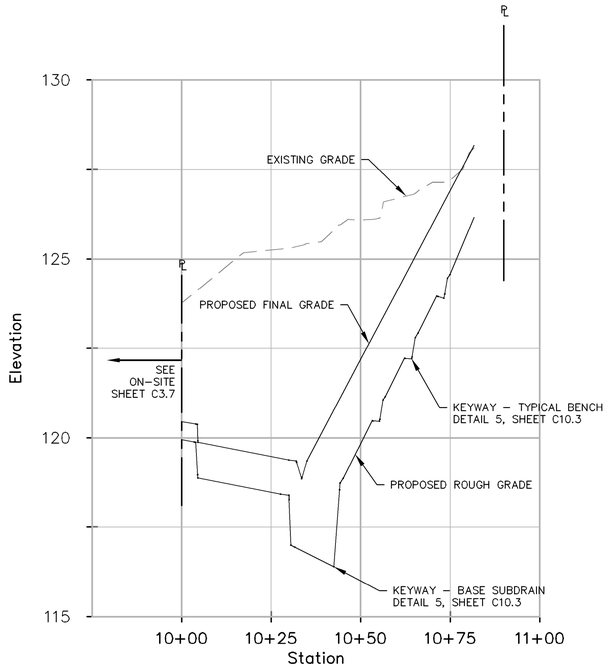


E / C3.1

SECTION E

ROBINSON STREET

HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'



C / C3.0

SECTION C

HORNE STREET

HORIZONTAL: 1" = 20'
VERTICAL: 1" = 2'

NOTES:

1. MINIMUM 2' OF CLEAN, IMPORT FILL BETWEEN PROPOSED ROUGH GRADE AND FINAL GRADE TO BE PLACED AND COMPACTED BY CONTRACTOR. SEE DETAILS 4 AND 5 ON SHEET C10.3 FOR KEYWAY INFORMATION. CONTRACTOR TO COORDINATE WITH GEOTECHNICAL ENGINEER.
2. SEE DETAIL 3 ON SHEET C9.4 FOR DURABLE COVER DETAIL. REFER TO ANALYSIS BY GEOSYNTEC CONSULTANTS FOR ADDITIONAL INFORMATION AND SPECIFICATIONS.

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BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
FINAL & ROUGH GRADING PROFILES

CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

Date 06/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C3.10

DRAWING NAME: J:\Eng11\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C3.9-C3.10 Grading Surface Sections.dwg
PLOT DATE: 10-06-15 PLOTTED BY: chuk

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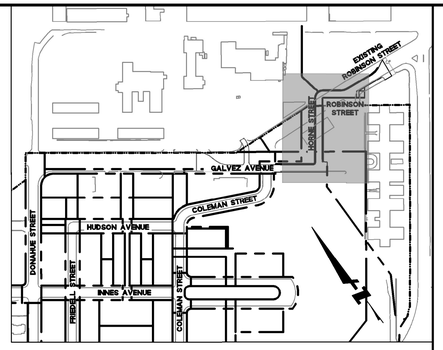
UTILITY LEGEND:

- 12"SD — STORM DRAIN (NIP)
- 27"SD — STORM DRAIN
- 6"SD — PERFORATED SUBDRAIN
- 16"LPW — LOW PRESSURE WATER
- 16"LPW — RECYCLED WATER
- 4"RW — SANITARY SEWER FORCE MAIN
- 6"SSFM — JOINT TRENCH (SHOWN FOR COORDINATION ONLY)
- JOINT TRENCH (NIP) (SHOWN FOR COORDINATION ONLY)
- RIGHT-OF-WAY/PROPERTY LINE
- CENTERLINE
- STORM DRAIN MANHOLE
- STORM DRAIN CATCH BASIN
- LOW PRESSURE WATER FIRE HYDRANT
- WATER METER
- BACKFLOW PREVENTER
- EXISTING STORM DRAIN STRUCTURES
- EXISTING SANITARY SEWER MANHOLE

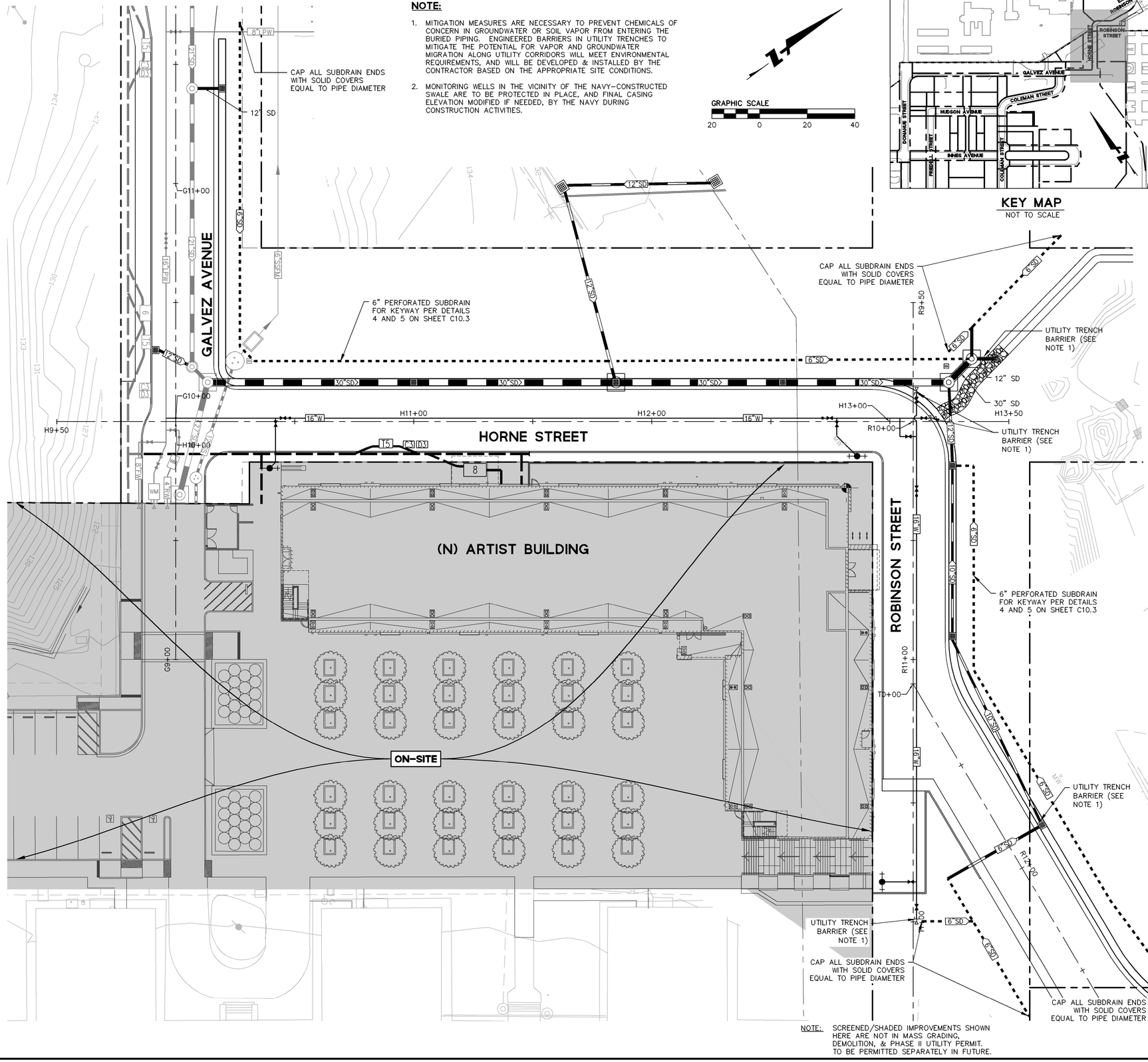
NOTE:

1. MITIGATION MEASURES ARE NECESSARY TO PREVENT CHEMICALS OF CONCERN IN GROUNDWATER OR SOIL VAPOR FROM ENTERING THE BURIED PIPING. ENGINEERED BARRIERS IN UTILITY TRENCHES TO MITIGATE THE POTENTIAL FOR VAPOR AND GROUNDWATER MIGRATION ALONG UTILITY CORRIDORS WILL MEET ENVIRONMENTAL REQUIREMENTS, AND WILL BE DEVELOPED & INSTALLED BY THE CONTRACTOR BASED ON THE APPROPRIATE SITE CONDITIONS.
2. MONITORING WELLS IN THE VICINITY OF THE NAVY-CONSTRUCTED SWALE ARE TO BE PROTECTED IN PLACE, AND FINAL CASING ELEVATION MODIFIED IF NEEDED, BY THE NAVY DURING CONSTRUCTION ACTIVITIES.

GRAPHIC SCALE
20 0 20 40



KEY MAP
NOT TO SCALE



NOTE: SCREENED/SHADED IMPROVEMENTS SHOWN HERE ARE NOT IN MASS GRADING, DEMOLITION, & PHASE II UTILITY PERMIT. TO BE PERMITTED SEPARATELY IN FUTURE.

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BUILDING 101 ARTISTS SUB-PHASE

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
COMPOSITE UTILITY PLAN

HUNTERS POINT PHASE II
CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C4.0

DRAWING NAME: J:\Engi1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C4.0 COMPOSITE UTILITY PLAN.dwg
PLOT DATE: 10-05-15 PLOTTED BY: chuk

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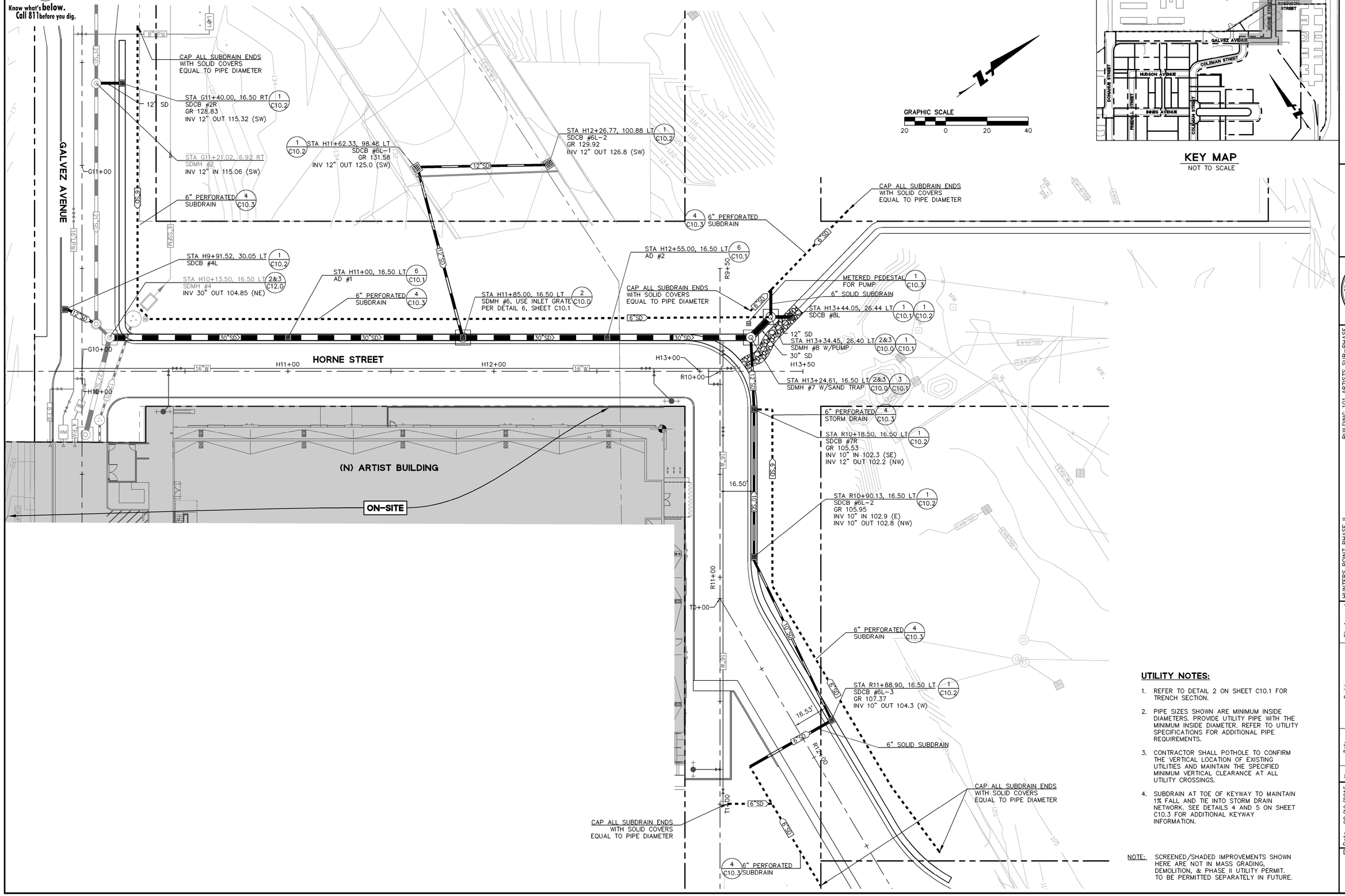
GALVEZ AVENUE
HORNE STREET
(N) ARTIST BUILDING
ON-SITE
CAP ALL SUBDRAIN ENDS WITH SOLID COVERS EQUAL TO PIPE DIAMETER
STA G11+40.00, 16.50 RT SDCB #2R GR 128.83 INV 12" OUT 115.32 (SW)
STA G11+21.02, 6.92 RT SDMH #2 INV 12" IN 115.06 (SW)
STA H11+62.33, 98.48 LT SDCB #6L-1 GR 131.58 INV 12" OUT 125.0 (SW)
STA H12+26.77, 100.88 LT SDCB #6L-2 GR 129.92 INV 12" OUT 126.8 (SW)
6" PERFORATED SUBDRAIN
STA H9+91.52, 30.05 LT SDCB #4L
STA H10+13.50, 16.50 LT SDMH #4 INV 30" OUT 104.85 (NE)
STA H11+00, 16.50 LT AD #1
STA H11+85.00, 16.50 LT SDMH #6, USE INLET GRATE PER DETAIL 6, SHEET C10.1
STA H12+55.00, 16.50 LT AD #2
METERED PEDESTAL FOR PUMP
6" SOLID SUBDRAIN
STA H13+44.05, 26.44 LT SDCB #8L
12" SD
STA H13+34.45, 26.40 LT SDMH #8 W/PUMP
30" SD
H13+50
STA H13+24.61, 16.50 LT SDMH #7 W/SAND TRAP
6" PERFORATED STORM DRAIN
STA R10+18.50, 16.50 LT SDCB #7R GR 105.53 INV 10" IN 102.3 (SE) INV 12" OUT 102.2 (NW)
STA R10+90.13, 16.50 LT SDCB #6L-2 GR 105.95 INV 10" IN 102.9 (E) INV 10" OUT 102.8 (NW)
STA R11+88.90, 16.50 LT SDCB #6L-3 GR 107.37 INV 10" OUT 104.3 (W)
CAP ALL SUBDRAIN ENDS WITH SOLID COVERS EQUAL TO PIPE DIAMETER
GRAPHIC SCALE
20 0 20 40
EXISTING ROBINSON STREET
ROBINSON STREET
HORNE STREET
GALVEZ AVENUE
COLEMAN STREET
HUDSON AVENUE
DONAHUE STREET
FRISELL STREET
INNES AVENUE
COLEMAN STREET

KEY MAP
NOT TO SCALE

UTILITY NOTES:

1. REFER TO DETAIL 2 ON SHEET C10.1 FOR TRENCH SECTION.
2. PIPE SIZES SHOWN ARE MINIMUM INSIDE DIAMETERS. PROVIDE UTILITY PIPE WITH THE MINIMUM INSIDE DIAMETER. REFER TO UTILITY SPECIFICATIONS FOR ADDITIONAL PIPE REQUIREMENTS.
3. CONTRACTOR SHALL POTHOLE TO CONFIRM THE VERTICAL LOCATION OF EXISTING UTILITIES AND MAINTAIN THE SPECIFIED MINIMUM VERTICAL CLEARANCE AT ALL UTILITY CROSSINGS.
4. SUBDRAIN AT TOE OF KEYWAY TO MAINTAIN 1% FALL AND TIE INTO STORM DRAIN NETWORK. SEE DETAILS 4 AND 5 ON SHEET C10.3 FOR ADDITIONAL KEYWAY INFORMATION.

NOTE: SCREENED/SHADED IMPROVEMENTS SHOWN HERE ARE NOT IN MASS GRADING, DEMOLITION, & PHASE II UTILITY PERMIT. TO BE PERMITTED SEPARATELY IN FUTURE.

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LENNAR URBAN

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BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
OVERALL OFF-SITE STORM DRAINAGE

CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C5.0

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C5.0-C5.1 STORM DRAINAGE.dwg
PLOT DATE: 10-05-15 PLOTTED BY: chuk

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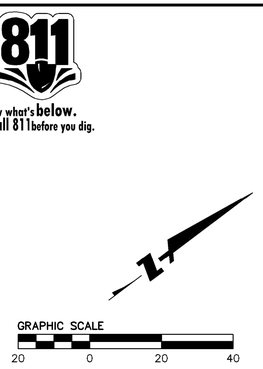
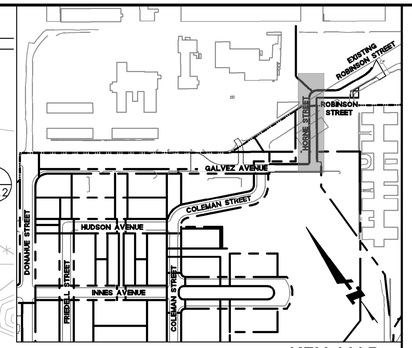




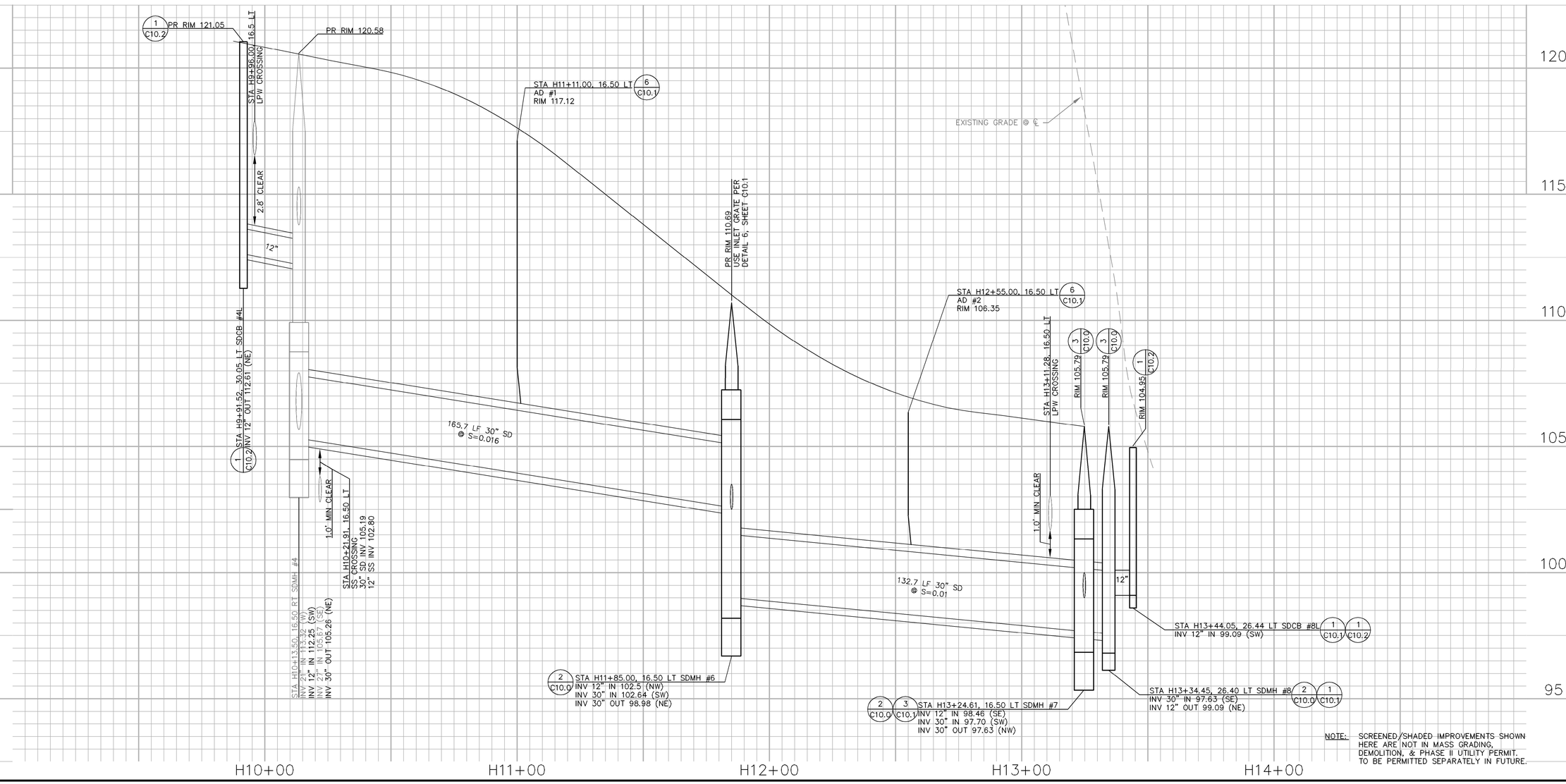
KEY MAP
NOT TO SCALE

UTILITY NOTES:

1. REFER TO DETAIL 2 ON SHEET C10.1 FOR TRENCH SECTION.
2. PIPE SIZES SHOWN ARE MINIMUM INSIDE DIAMETERS. PROVIDE UTILITY PIPE WITH THE MINIMUM INSIDE DIAMETER. REFER TO UTILITY SPECIFICATIONS FOR ADDITIONAL PIPE REQUIREMENTS.
3. CONTRACTOR SHALL POTHOLE TO CONFIRM THE VERTICAL LOCATION OF EXISTING UTILITIES AND MAINTAIN THE SPECIFIED MINIMUM VERTICAL CLEARANCE AT ALL UTILITY CROSSINGS.
4. SUBDRAIN AT TOE OF KEYWAY TO MAINTAIN 1% FALL AND TIE INTO STORM DRAIN NETWORK. SEE DETAILS 4 AND 5 ON SHEET C10.3 FOR ADDITIONAL KEYWAY INFORMATION.

HORNE STREET

SCALE: HORIZONTAL 1"=20'
VERTICAL 1"=2'



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LENNAR URBAN

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BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II
CITY AND COUNTY OF SAN FRANCISCO

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
HORNE STREET STORM DRAINAGE

CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No. 20110162

Drawing Number:
C5.1

DRAWING NAME: J:\Eng11\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C5.0-C5.1 STORM DRAINAGE.dwg
PLOT DATE: 09-29-15 PLOTTED BY: chuk

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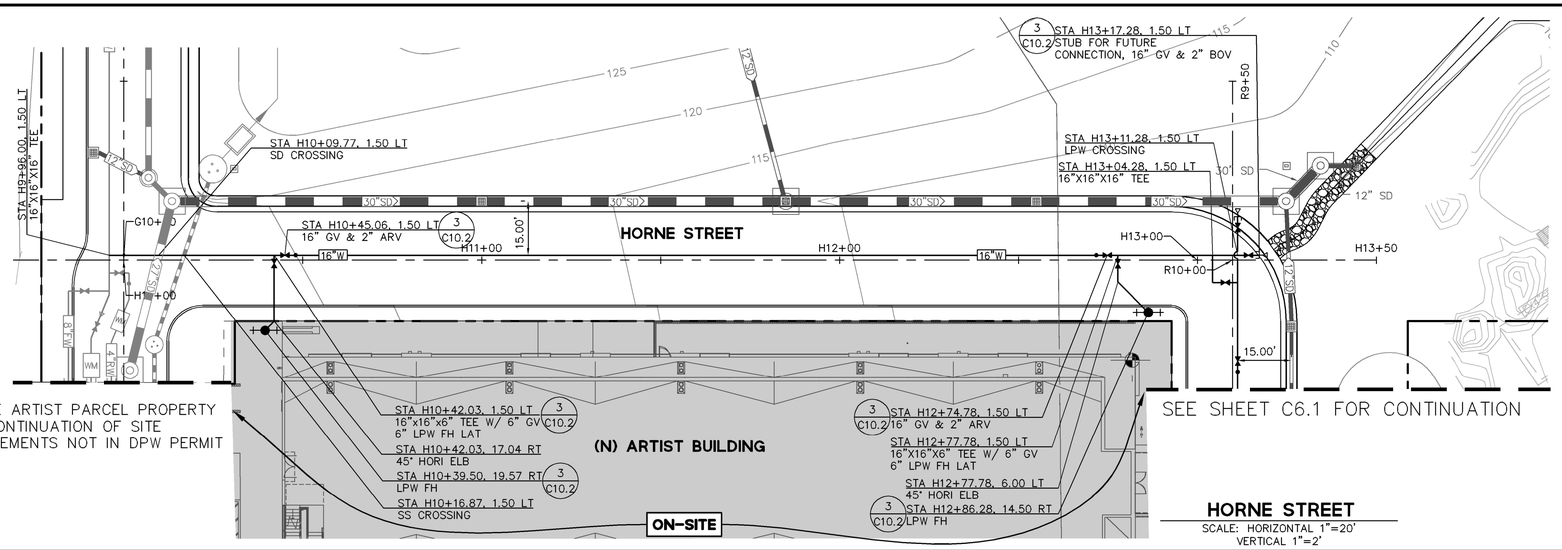
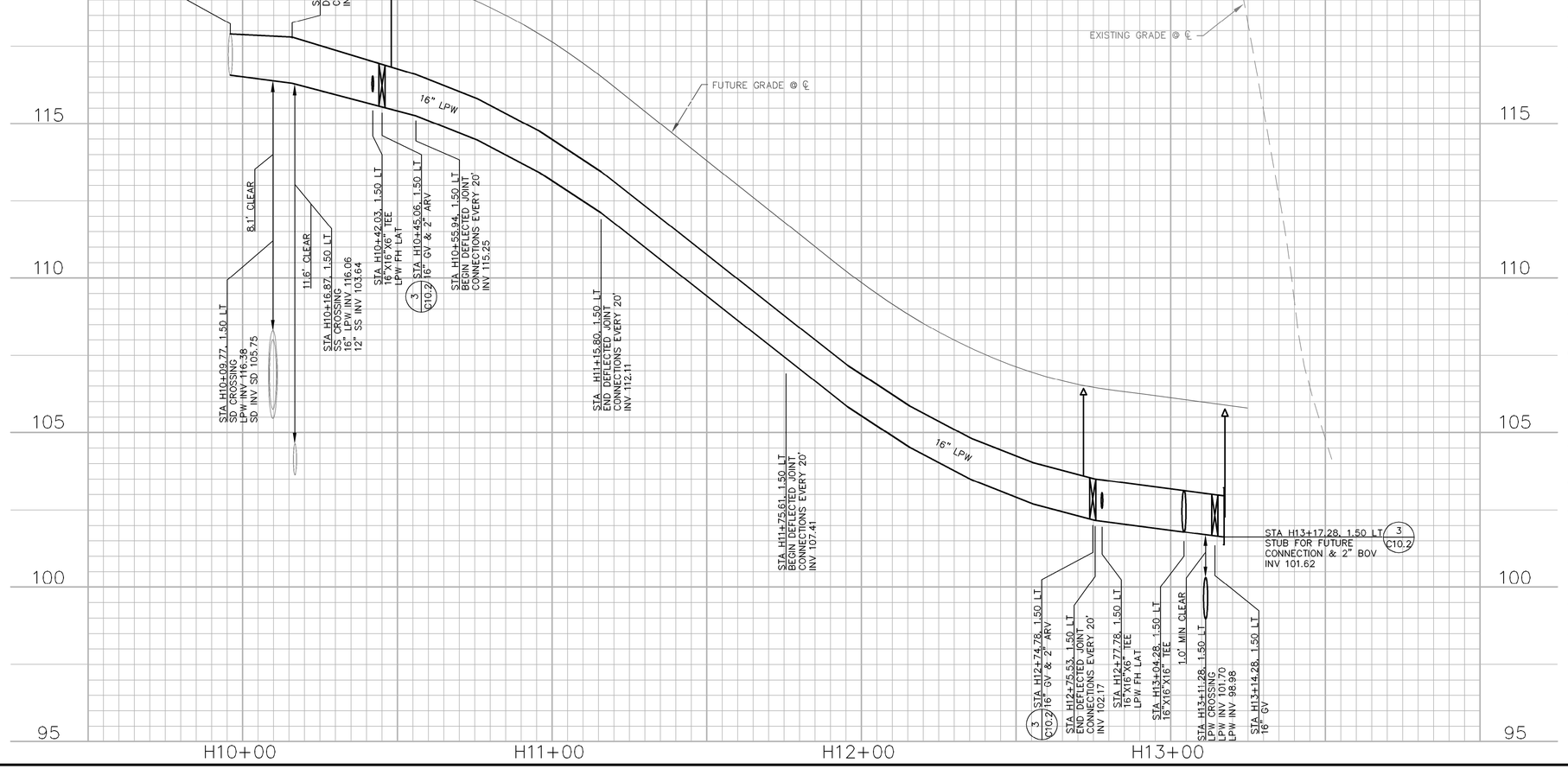
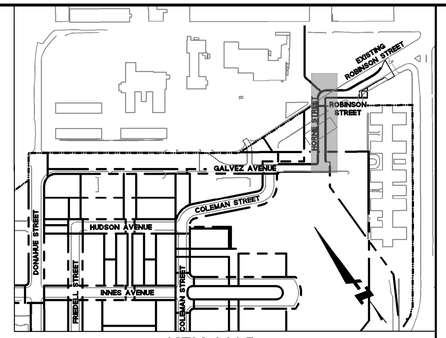


HORNE STREET

SCALE: HORIZONTAL 1"=20'
VERTICAL 1"=2'





KEY MAP
NOT TO SCALE

GRAPHIC SCALE
20 0 20 40

UTILITY NOTES:

1. INSTALL (N) LOW PRESSURE WATER FROM COLEMAN STREET & HUDSON AVENUE TO (N) COMMERCIAL KITCHEN & ARTIST BUILDING TIE-INS, AS SHOWN IN SEPARATE DBI PERMITS. CONTRACTOR TO COORDINATE (N) RW & FW TIE-INS FROM (N) LPW AT HORNE & GALVEZ STREET WITH THE ARTIST PARCEL DBI CONTRACTORS. INSTALL WITH MINIMUM COVER PER SUBDIVISION REGULATIONS.
2. ALL WATER WORKS SHALL BE IN ACCORDANCE WITH THE LATEST SFPUC STANDARD PLANS AND SPECIFICATIONS, AND SHALL BE SUBJECT TO INSPECTION BY THE DEPARTMENT.
3. ALL WATER LINES SHALL BE DUCTILE IRON PIPES ANSI/AWWA STANDARD C151. CONTRACTOR SHALL PROVIDE POLYETHYLENE ENCASEMENT ON ALL PIPES FOR CORROSION PROTECTION. SEE CP1.0-CP4.0.
4. BUILDING LATERALS: CONTRACTOR SHALL FURNISH AND INSTALL THE FOLLOWING, WITH THE EXCEPTION THAT IF THE MAIN IS LIVE DURING THIS INSTALLATION, CONTRACTOR SHALL COORDINATE WITH SFPUC FOR TAP-IN BY WATER DEPARTMENT.
   a. CONTRACTOR SHALL FURNISH AND INSTALL (N) FIRE HYDRANT LATERALS FROM THE WATER MAIN TIE-IN TO THE FH BREAK OFF RISER, INCLUDING TEE, REDUCERS, WATER SUPPLY LINE, AND GATE VALVE. (N) FH INSTALLATION SHALL BE BY SFPUC FROM BREAK-OFF RISER TO FH. CONTRACTOR SHALL PROVIDE ALL EXCAVATION, SHORING, AND BACKFILL FOR ALL WORK ASSOCIATED WITH (N) FH INSTALLATION.
   b. SIZES AND MINIMUM COVER OF WATER SERVICES PER CITY-APPROVED CPHP SUBDIVISION REGULATIONS.

	SIZES	MIN COVER
FIRE HYDRANT LATERALS	6"	30"
FIRE WATER	8"	30"
LOW PRESSURE WATER	8", 10", & 16"	30"-32"
RECLAIMED WATER	4"	30"

5. CONTRACTOR SHALL REPLACE PAVEMENT *IN KIND* AT UTILITY TRENCH LOCATION OUTSIDE OF NEW PAVEMENT WORK AND COMPLY WITH DPW ORDER NO. 178,940.
6. WATERLINES SHOWN TO BE ABANDONED, THAT ARE NOT IN CONFLICT WITH PROPOSED CONSTRUCTION, SHALL BE CAPPED. ABANDONED WATERLINES LARGER THAN 12" SHALL BE SLURRY FILLED. IF IN CONFLICT WITH PROPOSED CONSTRUCTION, SAID ABANDONED WATERLINE SHALL BE REMOVED TO THE EXTENT NECESSARY. (E) WATERLINES SHALL BE ABANDONED AFTER (N) WATERLINES HAVE BEEN INSTALLED, TESTED, LATERALS RECONNECTED AND WATERLINE ACTIVATED.
7. STANDARD WATER DETAILS CAN BE FOUND IN DETAIL 3 ON SHEET C10.2 (CDD STANDARD PLAN E-4969).
8. REFER TO CITY STANDARDS AND SPECIFICATIONS FOR WATER METER INFORMATION.
9. REFER TO DETAIL 4 ON SHEET C10.2 FOR LPW PIPE SEPARATION MITIGATION AND WHERE LPW JOINTS ARE LESS THAN 4' OUTSIDE OF RECYCLED WATER, AWSS, OR STORM DRAINS.
10. CONTRACTOR SHALL POTHOLE TO CONFIRM THE VERTICAL LOCATION OF EXISTING UTILITIES AND MAINTAIN THE SPECIFIED MINIMUM VERTICAL CLEARANCE AT ALL UTILITY CROSSINGS.
11. MAXIMUM DEFLECTION CRITERIA FOR DEFLECTED JOINTS ON ALL DUCTILE IRON PIPING WILL BE 2 DEGREES.
12. PIPE SIZES SHOWN ARE MINIMUM INSIDE DIAMETERS. PROVIDE UTILITY PIPE WITH THE MINIMUM INSIDE DIAMETER. REFER TO UTILITY SPECIFICATIONS FOR ADDITIONAL PIPE REQUIREMENTS.

NOTE: SCREENED/SHADED IMPROVEMENTS SHOWN HERE ARE NOT IN MASS GRADING, DEMOLITION, & PHASE II UTILITY PERMIT. TO BE PERMITTED SEPARATELY IN FUTURE.

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HUNTERS POINT PHASE II — BUILDING 101 ARTISTS SUB-PHASE

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
HORNE STREET LOW PRESSURE WATER

CITY AND COUNTY OF SAN FRANCISCO — CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C6.0

DRAWING NAME: J:\Eng11\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C6.0-C6.1 LOW PRESSURE WATER.dwg
PLOT DATE: 08-12-15 PLOTTED BY: chuk

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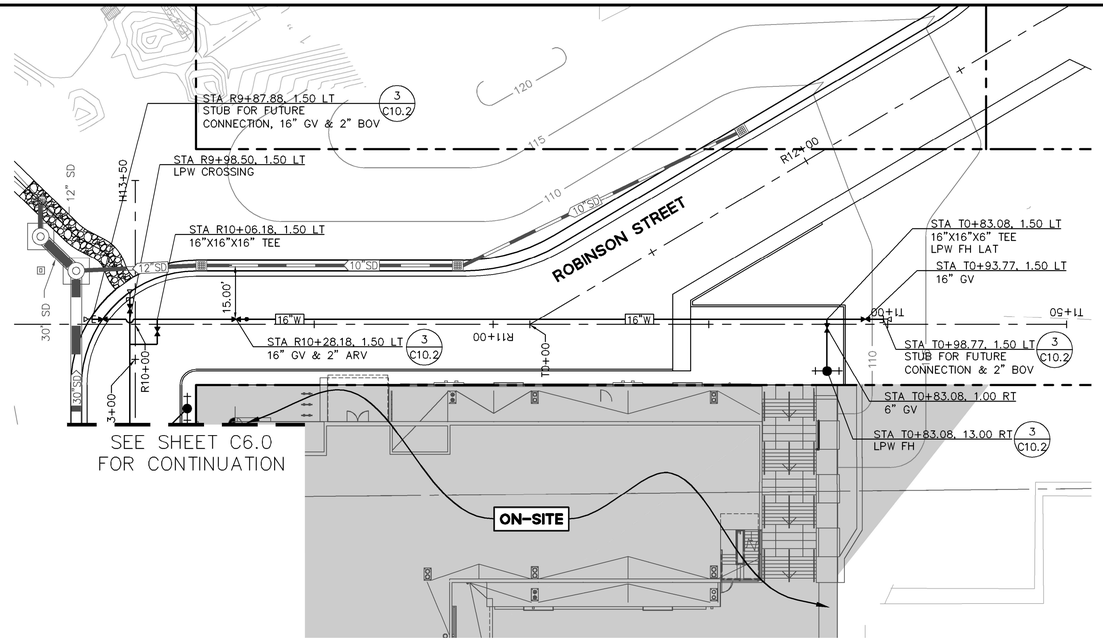
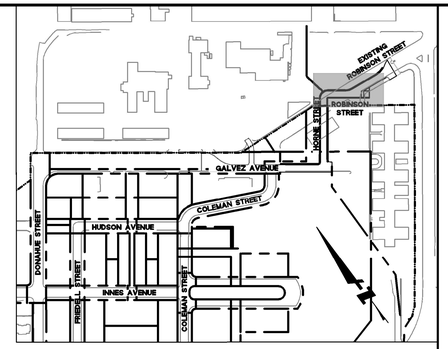


ROBINSON STREET
SCALE: HORIZONTAL 1"=20'
VERTICAL 1"=2'

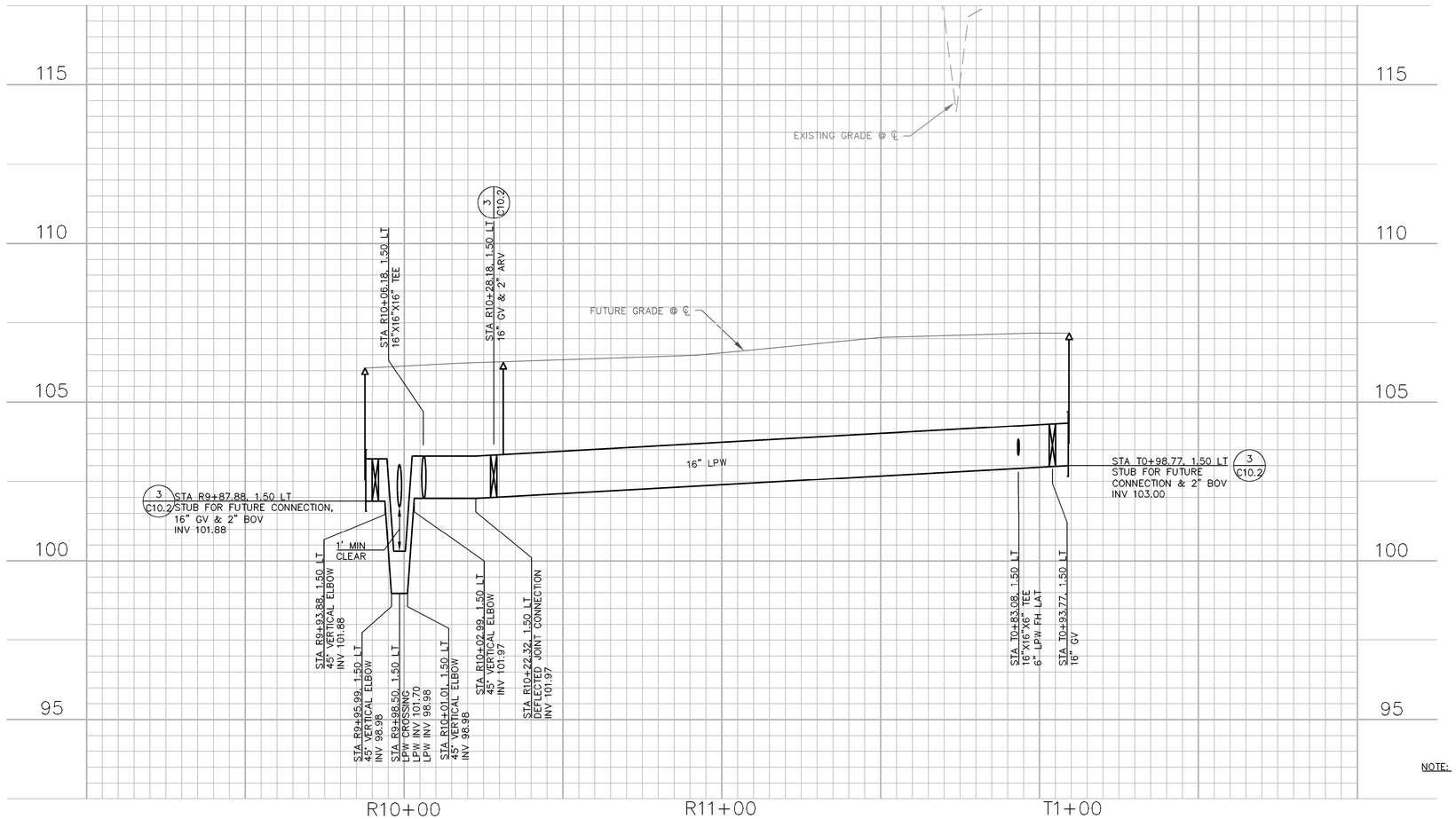


KEY MAP
NOT TO SCALE

GRAPHIC SCALE
20 0 20 40

UTILITY NOTES:

1. SEE SHEET C6.0 FOR UTILITY SHEET NOTES.



NOTE: SCREENED/SHADED IMPROVEMENTS SHOWN HERE ARE NOT IN MASS GRADING, DEMOLITION, & PHASE II UTILITY PERMIT. TO BE PERMITTED SEPARATELY IN FUTURE.

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LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER
CHARLES J. PLIMPTON
No. 53325
CIVIL
STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
ROBINSON STREET LOW PRESSURE WATER

CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C6.1

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C6.0-C6.1 LOW PRESSURE WATER.dwg
PLOT DATE: 08-12-15 PLOTTED BY: chuk

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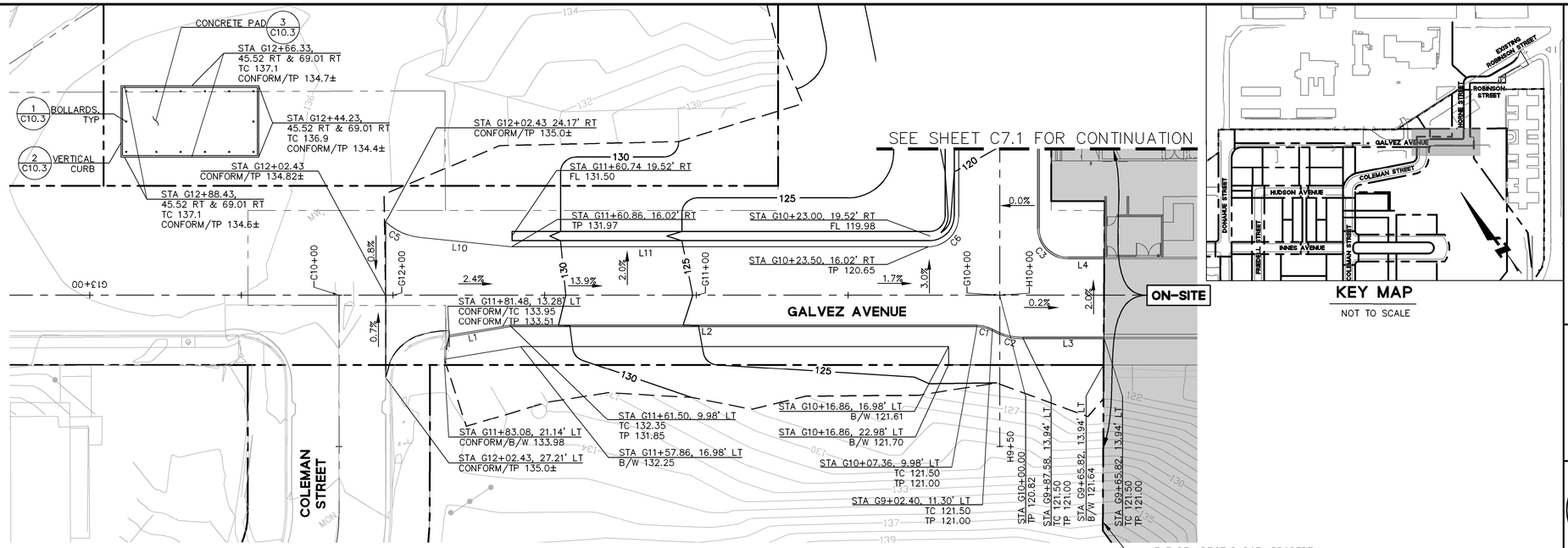
GRAPHIC SCALE
20 0 20 40

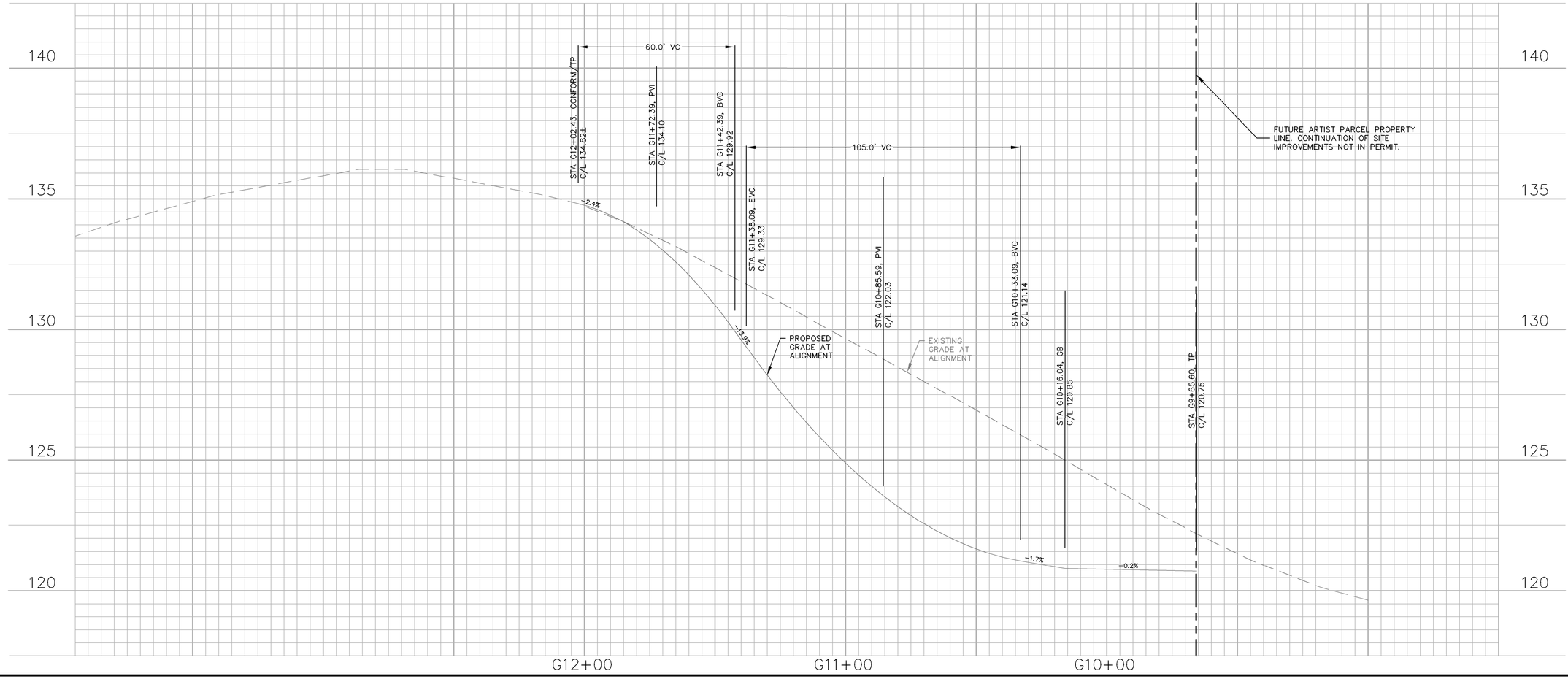
LINE TABLE		
LINE	LENGTH	DIRECTION
L1	20.25	N62°39'48"W
L2	154.14	N53°18'15"W
L3	26.82	N53°18'15"W
L4	11.98	N53°18'15"W
L5	270.72	N36°41'45"E
L6	133.17	S53°18'15"E
L7	21.53	S36°41'45"W
L8	128.87	N83°55'54"W
L9	4.87	N28°40'28"W
L10	30.28	N47°35'34"W
L11	137.36	N53°18'15"W
L12	266.76	S36°41'45"W
L13	75.47	N53°18'15"W
L14	118.94	N83°55'54"W

CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C1	5.19	10.00	029°44'58"
C2	10.38	20.00	029°44'57"
C3	15.71	10.00	090°00'00"
C4	7.07	4.50	090°00'00"
C5	12.72	19.67	037°03'06"
C6	15.71	10.00	090°00'00"
C7	47.91	30.50	090°00'00"
C8	29.40	55.00	030°37'39"
C9	56.55	75.00	043°12'09"


CONCRETE PAD 3 C10.3
STA G12+66.33, 45.52 RT & 69.01 RT TC 137.1 CONFORM/TP 134.7±
1 C10.3 BOLLARDS, TYP
2 C10.3 VERTICAL CURB
STA G12+44.23, 45.52 RT & 69.01 RT TC 136.9 CONFORM/TP 134.4±
STA G12+02.43 CONFORM/TP 134.82±
STA G12+88.43, 45.52 RT & 69.01 RT TC 137.1 CONFORM/TP 134.6±
STA G12+02.43 24.17' RT CONFORM/TP 135.0±
STA G11+60.74 19.52' RT FL 131.50
STA G11+60.86, 16.02' RT TP 131.97
STA G10+23.00, 19.52' RT FL 119.98
STA G10+23.50, 16.02' RT TP 120.65
SEE SHEET C7.1 FOR CONTINUATION
ON-SITE
GALVEZ AVENUE
COLEMAN STREET
STA G11+81.48, 13.28' LT CONFORM/TC 133.95 CONFORM/TP 133.51
STA G11+83.08, 21.14' LT CONFORM/B/W 133.98
STA G12+02.43, 27.21' LT CONFORM/TP 135.0±
STA G11+61.50, 9.98' LT TC 132.35 TP 131.85
STA G11+57.86, 16.98' LT B/W 132.25
STA G10+16.86, 16.98' LT B/W 121.61
STA G10+16.86, 22.98' LT B/W 121.70
STA G10+07.36, 9.98' LT TC 121.50 TP 121.00
STA G9+02.40, 11.30' LT TC 121.50 TP 121.00
STA G10+00.00 TP 120.82
STA G9+87.58, 13.94' LT TC 121.50 TP 121.00
STA G9+65.82, 13.94' LT B/W 121.64
STA G9+65.82, 13.94' LT TC 121.50 TP 121.00
FUTURE ARTIST PARCEL PROPERTY LINE. CONTINUATION OF SITE IMPROVEMENTS NOT IN PERMIT.

GALVEZ AVENUE
SCALE: HORIZONTAL 1"=20'
VERTICAL 1"=2'

KEY MAP
NOT TO SCALE



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LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER CHARLES J. PILIPAL No. 53325 CIVIL STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
GALVEZ AVENUE SURFACE IMPROVEMENTS

CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C7.0

DRAWING NAME: J:\Engl\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C7.0-C7.3 SURFACE IMPROVEMENTS.dwg
PLOT DATE: 10-06-15 PLOTTED BY: chuk

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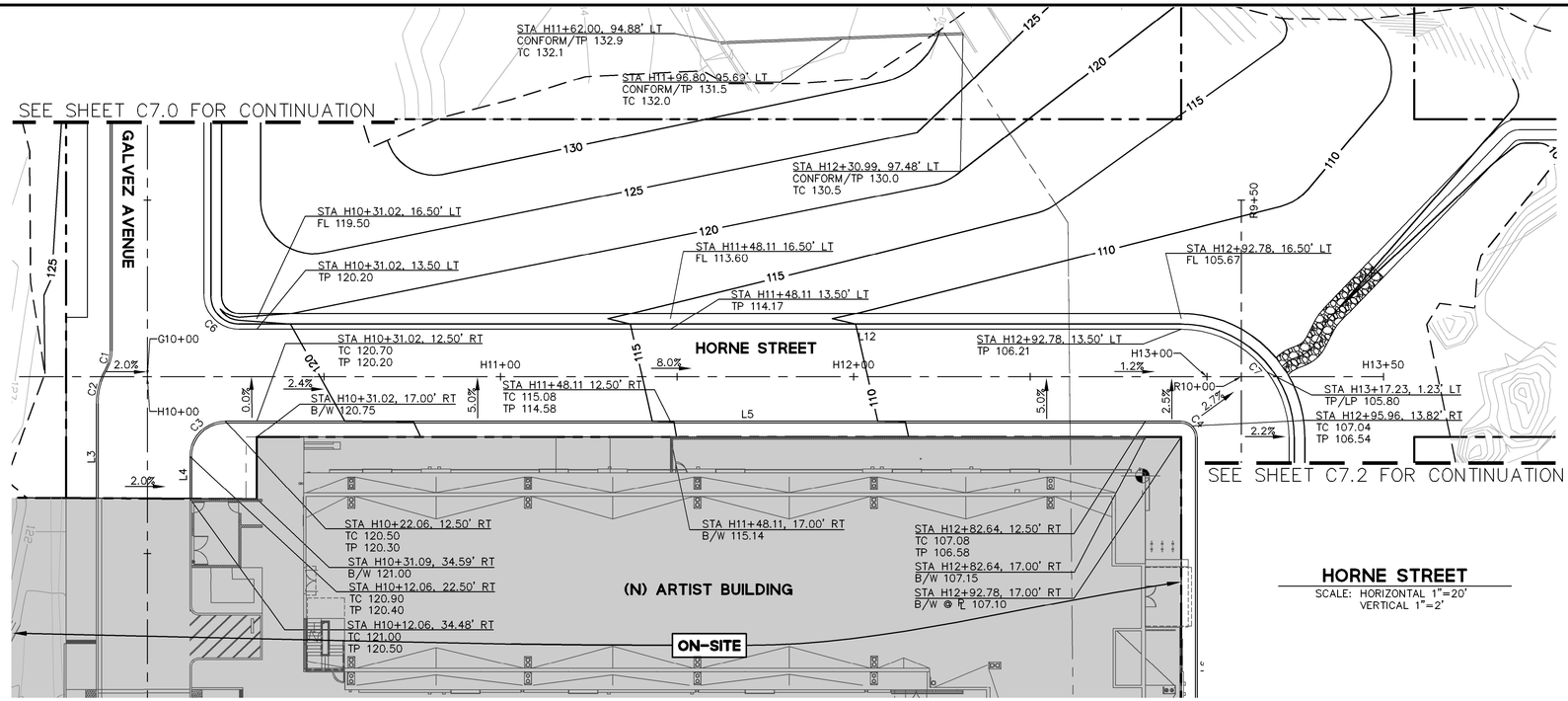
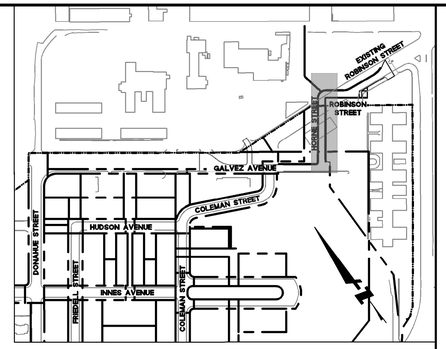


HORNE STREET
SCALE: HORIZONTAL 1"=20'
VERTICAL 1"=2'



KEY MAP
NOT TO SCALE

LINE TABLE		
LINE	LENGTH	DIRECTION
L1	20.25	N62°39'48"W
L2	154.14	N53°18'15"W
L3	26.82	N53°18'15"W
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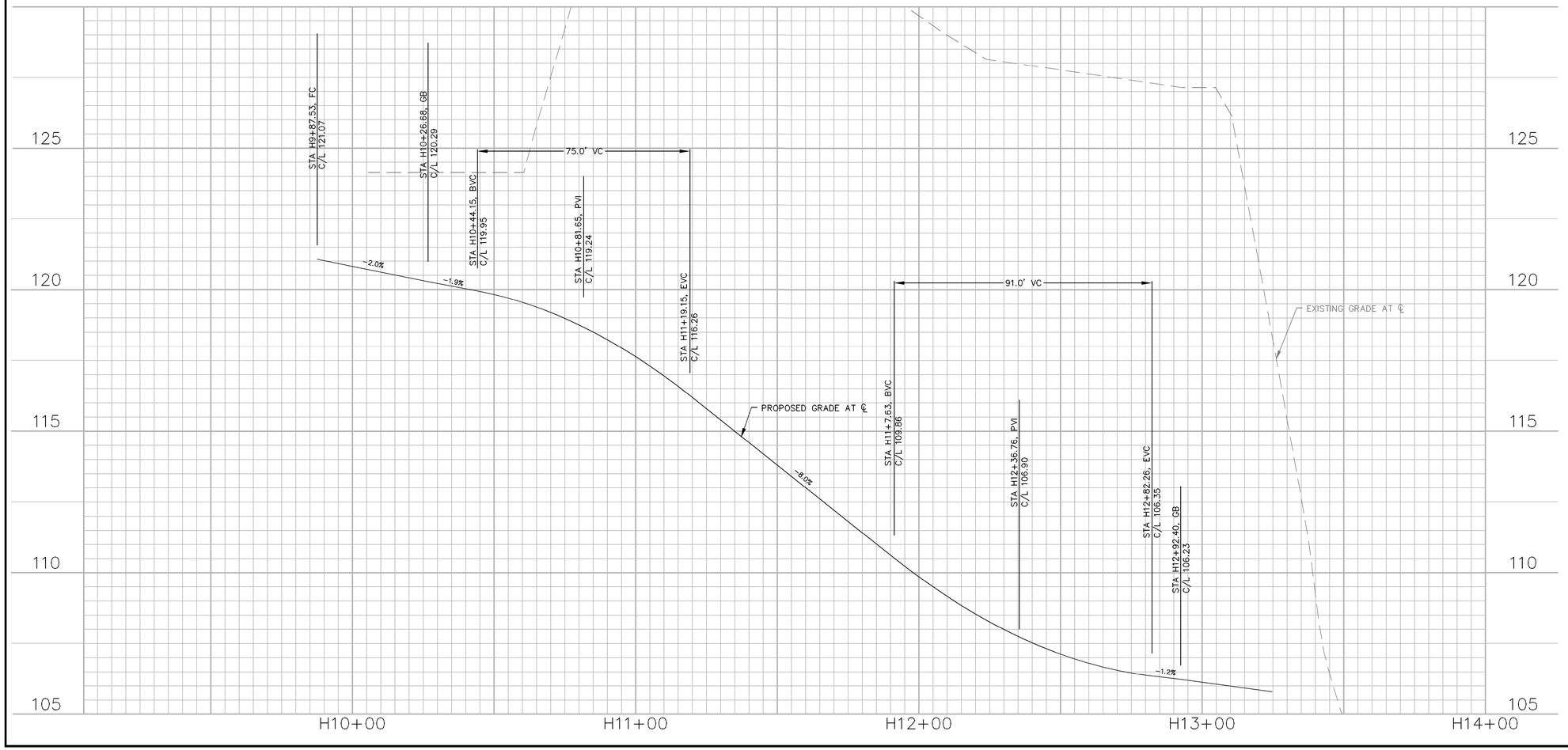
C7	47.91	30.50	090°00'00"
C8	29.40	55.00	030°37'39"
C9	56.55	75.00	043°12'09"



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LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER
CHARLES J. PLIMPLEY
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CIVIL
STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
FUTURE HORNE STREET SURFACE IMPROVEMENTS

CITY AND COUNTY OF SAN FRANCISCO, CALIFORNIA

No.	Date	Revisions	City Approval

Date 06/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C7.1

DRAWING NAME: J:\Eng11\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C7.0-C7.3 SURFACE IMPROVEMENTS.dwg
PLOT DATE: 10-06-15 PLOTTED BY: chuk

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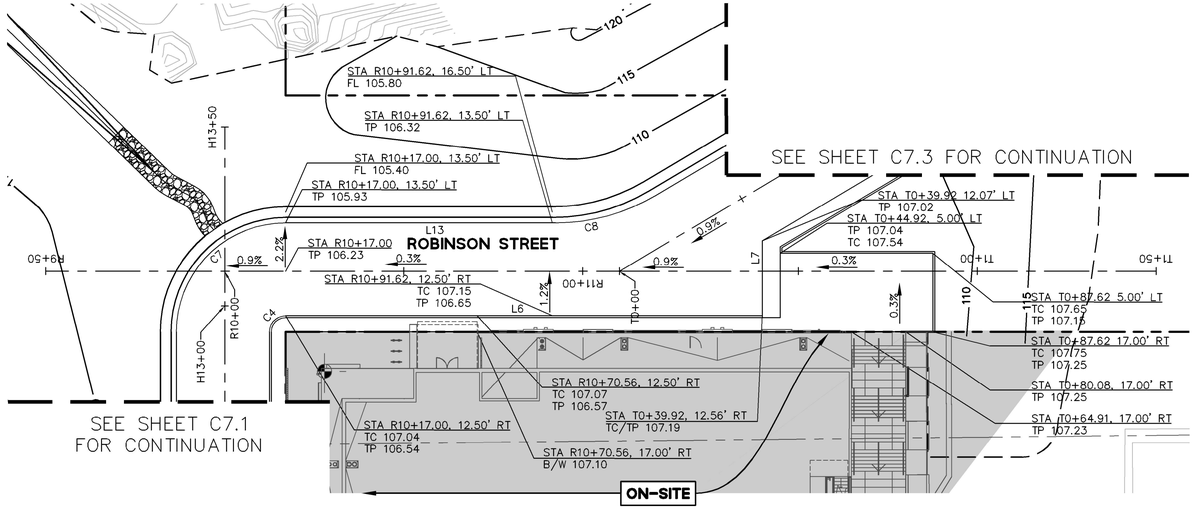

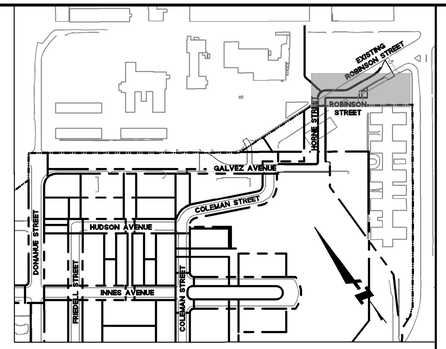

KEY MAP
NOT TO SCALE

LINE TABLE		
LINE	LENGTH	DIRECTION
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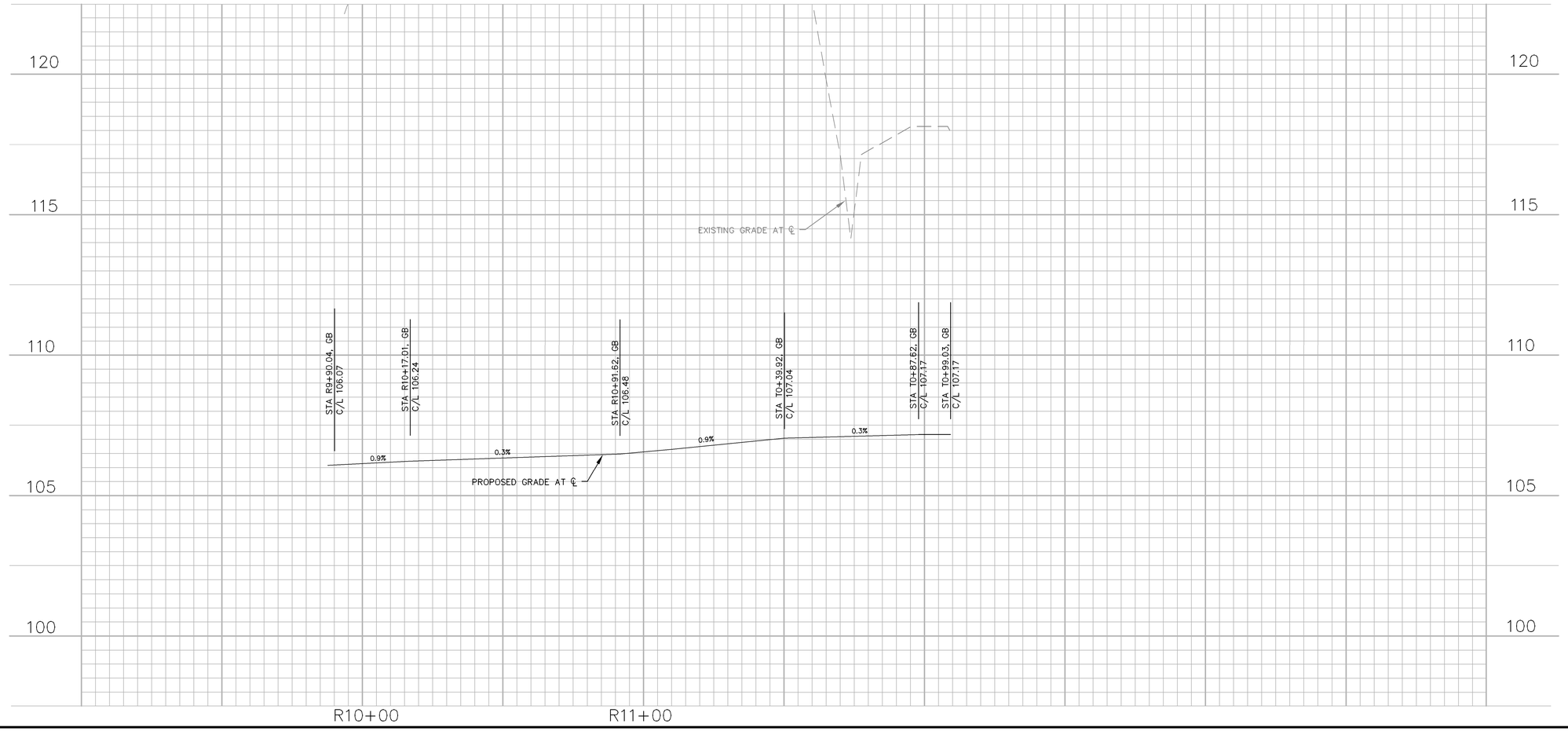
C7	47.91	30.50	090°00'00"
C8	29.40	55.00	030°37'39"
C9	56.55	75.00	043°12'09"

ROBINSON STREET
SCALE: HORIZONTAL 1"=20'
VERTICAL 1"=2'



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LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER
CHARLES J. PLIMPTON
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BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II
ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
ROBINSON STREET SURFACE IMPROVEMENTS
CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C7.2

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C7.0-C7.3 SURFACE IMPROVEMENTS.dwg
PLOT DATE: 10-06-15 PLOTTED BY: chuk

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LINE TABLE		
LINE	LENGTH	DIRECTION
L1	20.25	N62°39'48"W
L2	154.14	N53°18'15"W
L3	26.82	N53°18'15"W
L4	11.98	N53°18'15"W
L5	270.72	N36°41'45"E
L6	133.17	S53°18'15"E
L7	21.53	S36°41'45"W
L8	128.87	N83°55'54"W
L9	4.87	N28°40'28"W
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L13	75.47	N53°18'15"W
L14	118.94	N83°55'54"W

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CURVE	LENGTH	RADIUS	DELTA
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C3	15.71	10.00	090°00'00"
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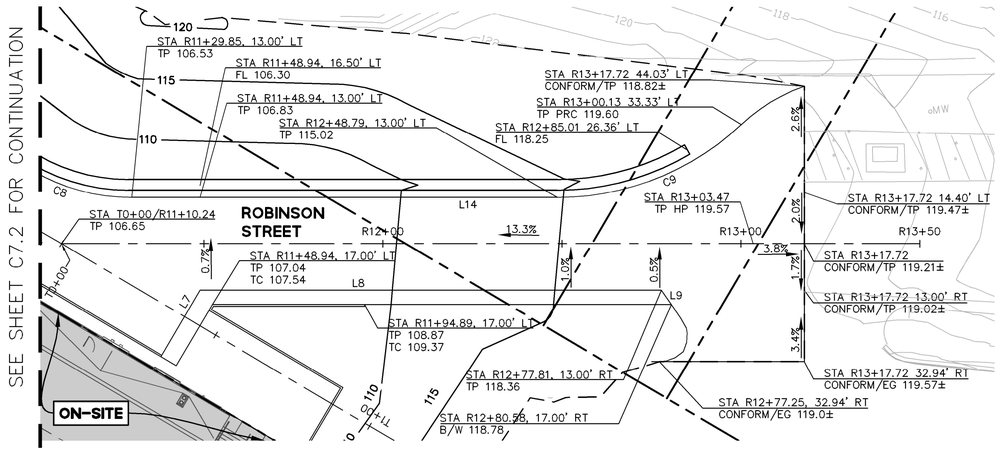
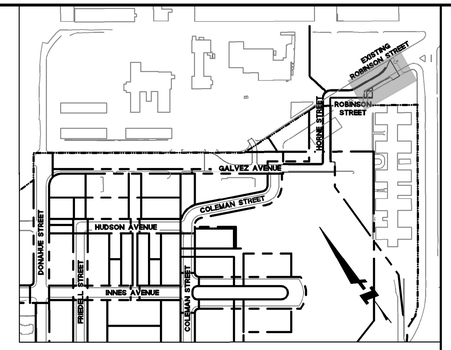
C5	12.72	19.67	037°03'06"
C6	15.71	10.00	090°00'00"
C7	47.91	30.50	090°00'00"
C8	29.40	55.00	030°37'39"
C9	56.55	75.00	043°12'09"



ROBINSON STREET

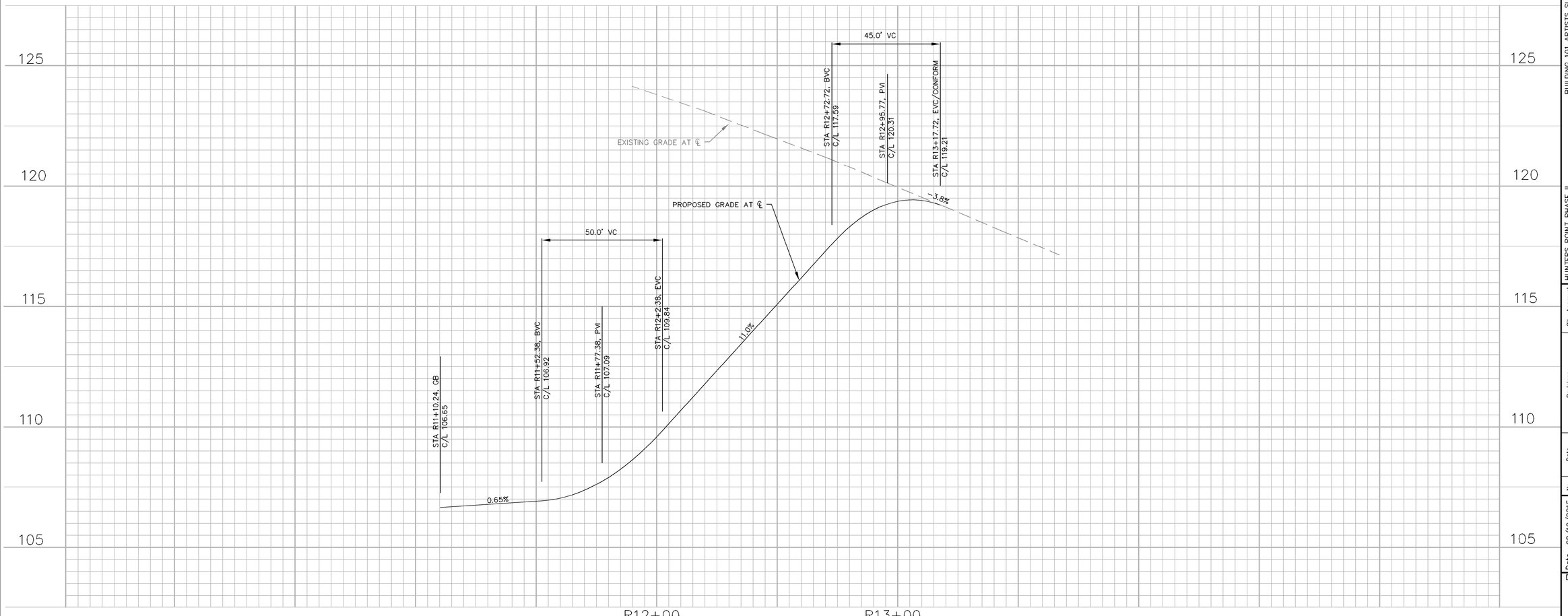
SCALE: HORIZONTAL 1"=20'
VERTICAL 1"=2'



KEY MAP

NOT TO SCALE

GRAPHIC SCALE
20 0 20 40



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650/482-6399 (FAX)

LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER
CHARLES J. PLIMPTON
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CIVIL
STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
ROBINSON STREET SURFACE IMPROVEMENTS

CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C7.3

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C7.0-C7.3 SURFACE IMPROVEMENTS.dwg
PLOT DATE: 10-06-15 PLOTTED BY: chuk

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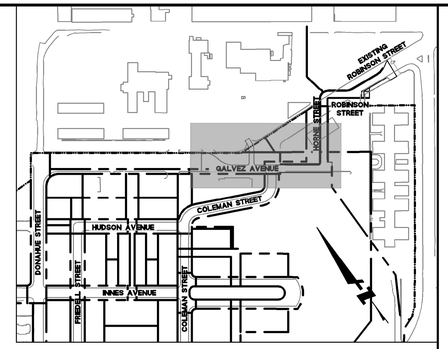
LINE TABLE		
LINE	LENGTH	DIRECTION
L1	66.22	S47°35'37"E
L2	27.22	S47°35'37"E
L3	64.94	N53°18'15"W
L4	286.74	N48°23'32"W
L5	251.43	N53°18'15"W
L6	147.96	N83°55'54"W
L7	57.93	N64°48'26"E
L8	59.10	S76°07'54"W

CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C1	84.07	200.00	024°05'01"
C2	64.13	200.00	018°22'23"
C3	18.86	10.00	108°02'08"
C4	71.91	60.00	068°40'24"
C5	55.34	80.00	039°38'04"
C6	41.07	60.00	039°13'06"
C7	103.18	80.00	073°53'38"
C8	26.94	20.00	077°11'06"
C10	43.12	80.67	030°37'39"

SIGNING AND STRIPING KEYNOTES:

1. 1' WHITE LIMIT LINE
   CALTRANS STANDARD SHEET A24E
2. 4" SOLID WHITE LINE
   CALTRANS STANDARD SHEET A20D DETAIL 38A
3. 4" DOUBLE SOLID YELLOW LINES
   CALTRANS STANDARD SHEET A20A DETAIL 21
4. 8" SOLID WHITE LINE
   CALTRANS STANDARD SHEET A20D DETAIL 38A
5. 4" SOLID WHITE STRIPE
   3' OC STRIPING
6. 90° RIGHT TURN SIGN
   MUTCD W1-1 (RT)
7. 90° LEFT TURN SIGN
   MUTCD W1-1 (LT)
8. LEFT DIRECTIONAL SIGN
   MUTCD W1-6 (LT)
9. RIGHT DIRECTIONAL SIGN
   MUTCD W1-6 (RT)
10. WARNING SPEED SIGN
    MUTCD W13-1P (20)
11. "SPEED LIMIT 25" SIGN
    MUTCD R2-1 (25)
12. TRUCK STEEP SLOPE SIGN
    MUTCD W7-1a (14%)
13. BIKE STEEP SLOPE SIGN
    MUTCD W7-5
14. BICYCLES "MAY USE FULL LANE" SIGN
    MUTCD R4-11
15. "LEFT LANE ENDS" SIGN
    MUTCD W9-1 (LT)
16. "STOP" SIGN
    MUTCD R1-1
17. "WATCH DOWNHILL SPEED" SIGN
    MUTCD SW4-1 (CA)
18. CURVE LEFT
    MUTCD W1-2 (LT)
19. CURVE RIGHT
    MUTCD W1-2 (RT)
20. WARNING SPEED SIGN
    MUTCD W13-1P (15)
21. TRUCK STEEP SLOPE SIGN
    MUTCD W7-1a (11%)



KEY MAP
NOT TO SCALE

GRAPHIC SCALE
20 0 20 40

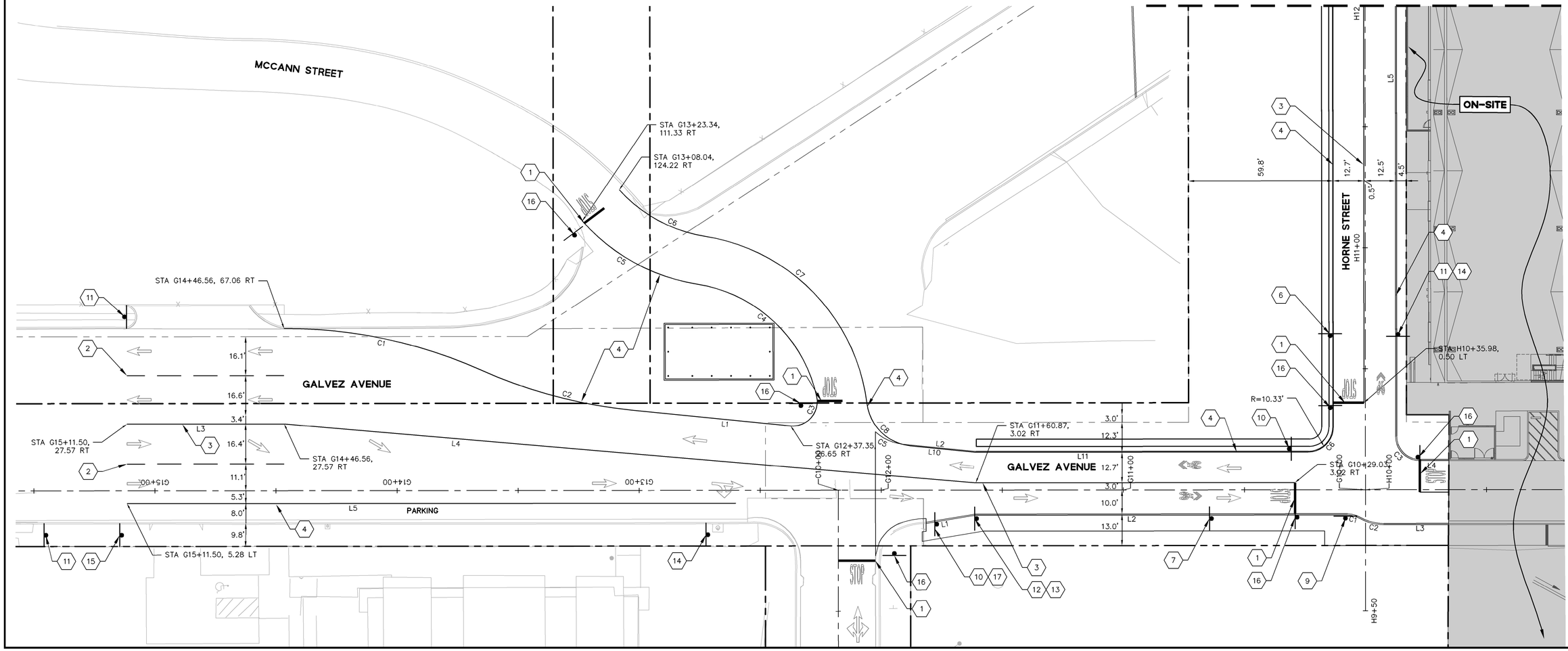
LEGEND:

- TYPE I 18" ARROW
  CALTRANS STANDARD SHEET A24A
- "STOP" MARKING
  CALTRANS STANDARD SHEET A24D
- SHARED ROADWAY BICYCLE MARKING
  CALTRANS STANDARD SHEET A24C
- CALTRANS DOUBLE SOLID YELLOW STRIPING
- CALTRANS SOLID WHITE STRIPE
- MUTCD STREET SIGN

NOTE:

1. ALL PAVEMENT MARKINGS TO BE PAINT IN ACCORDANCE WITH CALTRANS STANDARDS.

SEE SHEET C8.1 FOR CONTINUATION



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LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER
CHARLES J. PLIMPTON
No. 53325
CIVIL
STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
SIGNING AND STRIPING PLAN

CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C8.0

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C8.0-C8.1 SIGNING AND STRIPING PLAN.dwg
PLOT DATE: 08-12-15
PLOTTED BY: chuk

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811 Know what's below. Call 811 before you dig.

LINE TABLE		
LINE	LENGTH	DIRECTION
L1	66.22	S47°35'37"E
L2	27.22	S47°35'37"E
L3	64.94	N53°18'15"W
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L6	147.96	N83°55'54"W
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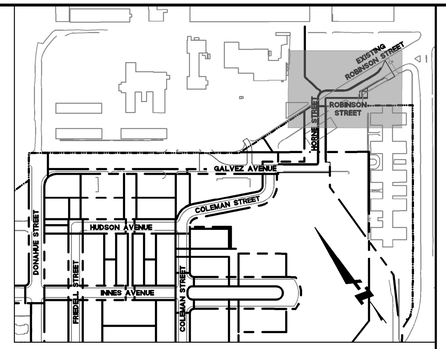
C5	55.34	80.00	039°38'04"
C6	41.07	60.00	039°13'06"
C7	103.18	80.00	073°53'38"
C8	26.94	20.00	077°11'06"
C10	43.12	80.67	030°37'39"

SIGNING AND STRIPING KEYNOTES:

1. 1' WHITE LIMIT LINE
   CALTRANS STANDARD SHEET A24E
2. 4" SOLID WHITE LINE
   CALTRANS STANDARD SHEET A20D DETAIL 38A
3. 4" DOUBLE SOLID YELLOW LINES
   CALTRANS STANDARD SHEET A20A DETAIL 21
4. 8" SOLID WHITE LINE
   CALTRANS STANDARD SHEET A20D DETAIL 38A
5. 4" SOLID WHITE STRIPE
   3' OC STRIPING
6. 90° RIGHT TURN SIGN
   MUTCD W1-1 (RT)
7. 90° LEFT TURN SIGN
   MUTCD W1-1 (LT)
8. LEFT DIRECTIONAL SIGN
   MUTCD W1-6 (LT)
9. RIGHT DIRECTIONAL SIGN
   MUTCD W1-6 (RT)
10. WARNING SPEED SIGN
    MUTCD W13-1P (20)
11. "SPEED LIMIT 25" SIGN
    MUTCD R2-1 (25)
12. TRUCK STEEP SLOPE SIGN
    MUTCD W7-1a (14%)
13. BIKE STEEP SLOPE SIGN
    MUTCD W7-5
14. BICYCLES "MAY USE FULL LANE" SIGN
    MUTCD R4-11
15. "LEFT LANE ENDS" SIGN
    MUTCD W9-1 (LT)
16. "STOP" SIGN
    MUTCD R1-1
17. "WATCH DOWNHILL SPEED" SIGN
    MUTCD SW4-1 (CA)
18. CURVE LEFT
    MUTCD W1-2 (LT)
19. CURVE RIGHT
    MUTCD W1-2 (RT)
20. WARNING SPEED SIGN
    MUTCD W13-1P (15)
21. TRUCK STEEP SLOPE SIGN
    MUTCD W7-1a (11%)



KEY MAP
NOT TO SCALE

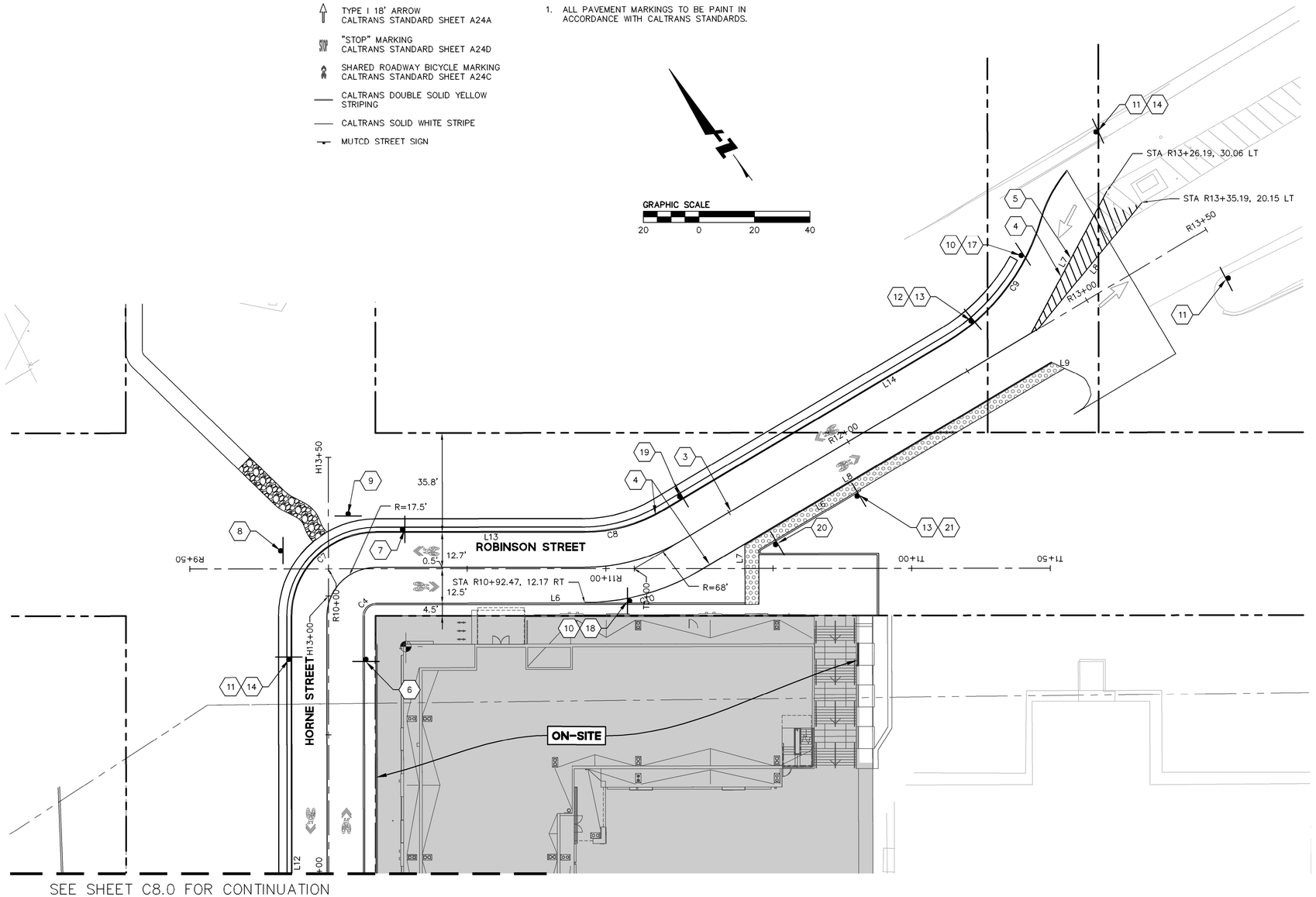
LEGEND:

- TYPE I 18' ARROW
  CALTRANS STANDARD SHEET A24A
- "STOP" MARKING
  CALTRANS STANDARD SHEET A24D
- SHARED ROADWAY BICYCLE MARKING
  CALTRANS STANDARD SHEET A24C
- CALTRANS DOUBLE SOLID YELLOW STRIPING
- CALTRANS SOLID WHITE STRIPE
- MUTCD STREET SIGN

NOTE:

1. ALL PAVEMENT MARKINGS TO BE PAINT IN ACCORDANCE WITH CALTRANS STANDARDS.

GRAPHIC SCALE
20 0 20 40



SEE SHEET C8.0 FOR CONTINUATION

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LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER
CHARLES J. PLUMEAU
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STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II
ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
SIGNING AND STRIPING PLAN
CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C8.1

DRAWING NAME: J:\Engl\1101162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C8.0-C8.1 SIGNING AND STRIPING PLAN.dwg
PLOT DATE: 08-12-15 PLOTTED BY: chuk

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EROSION AND SEDIMENT CONTROL NOTES

1. THIS PLAN IS INTENDED TO BE USED FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY AND IS NOT TO BE USED FOR FINAL ELEVATIONS OR PERMANENT IMPROVEMENTS.
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP), PREPARED BY OTHERS. IN ADDITION, THE CONTRACTOR SHALL MAINTAIN THE SITE IN COMPLIANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION GENERAL PERMIT ORDER 2009-0009-DWQ AS AMENDED BY ORDER 2010-0014-DWQ AND 2012-0006-DWQ, ADMINISTERED BY THE STATE WATER RESOURCES CONTROL BOARD (SWRCB).
3. OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO, DURING, AND AFTER STORM EVENTS.
4. GRADING SCHEDULE SHALL BE SUBMITTED FOR APPROVAL TO THE CITY AND COUNTY OF SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS BY OCTOBER 15. NO GRADING SHALL BE ALLOWED DURING THE RAINY SEASON (OCTOBER 15 TO APRIL 15) TO AVOID POTENTIAL SOIL EROSION UNLESS APPROVED, IN WRITING, BY THE COMMUNITY DEVELOPMENT DIRECTOR. THE PROPERTY OWNERS SHALL SUBMIT A LETTER TO THE CURRENT PLANNING SECTION, AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF GRADING, STATING THE DATE WHEN GRADING WILL BEGIN.
5. THE NAME, ADDRESS, AND 24-HOUR TELEPHONE NUMBER OF THE PERSON RESPONSIBLE FOR IMPLEMENTATION OF EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE PROVIDED TO THE CONSTRUCTION MANAGER AND THE CITY.

   NAME _____
   ADDRESS: _____
   TELEPHONE NO: _____
   EMERGENCY TELEPHONE NO: _____

6. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. IN GENERAL, THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE STORM RUNOFF FROM LEAVING THE SITE. GRAVELBAGS, SILT FENCES, AND FIBER ROLLS SHALL BE USED BY THE CONTRACTOR ON AN AS NEEDED BASIS TO INHIBIT SILT FROM LEAVING THE SITE AND ENTERING THE STORM DRAIN SYSTEM. EXISTING, TEMPORARY, OR PERMANENT CATCH BASINS SHALL USE ONE OF THE SEDIMENT BARRIERS SHOWN.
7. THE CONTRACTOR SHALL UPDATE THE PLANS TO REFLECT CHANGING SITE CONDITIONS. PLAN UPDATES SHALL BE BASED UPON GENERAL SURVEY DATA. EROSION CONTROL EFFECTIVENESS SHALL ALSO BE MONITORED AND THE PLANS UPGRADED AS REQUIRED TO PREVENT SIGNIFICANT QUANTITIES OF SEDIMENT FROM ENTERING THE DOWNSTREAM DRAINAGE SYSTEM.
8. ALTHOUGH SPECIFIC LOCATIONS FOR SEDIMENT CONTROL FACILITIES ARE SHOWN ON THESE PLANS, IT IS INTENDED THIS EROSION CONTROL PLAN BE MODIFIED WHEN NECESSARY TO MEET FIELD CONDITIONS. BASIN AND TRAP SIZES AND ELEVATIONS MAY BE ADJUSTED AS LONG AS THE MINIMUM AREAS AND DEPTHS FOR SEDIMENT SETTLING AND STORAGE ARE NOT REDUCED.
9. REASONABLE CARE SHALL BE TAKEN WHEN HAULING ANY EARTH, SAND, GRAVEL, STONE, DEBRIS, PAPER, OR OTHER SUBSTANCE OVER A PUBLIC STREET, ALLEY, OR OTHER PUBLIC PLACE. SHOULD THE HAUL MATERIAL BLOW, SPILL, OR TRACK OVER UPON SAID PUBLIC OR AN ADJACENT PRIVATE PROPERTY, IMMEDIATE REMEDY SHALL OCCUR.
10. THE CONTRACTOR WILL BE LIABLE FOR ANY AND ALL DAMAGES TO PUBLICLY AND/OR PRIVATELY OWNED AND MAINTAINED ROADS CAUSED BY THE CONTRACTOR'S GRADING ACTIVITIES AND WILL BE RESPONSIBLE FOR THE CLEANUP OF MATERIAL SPILLED ON PUBLIC ROADS ON THE HAUL ROUTE. ADJACENT PUBLIC ROADS SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
11. HAUL ROADS ARE CURRENTLY NOT SHOWN ON THE PLANS. EROSION CONTROL MEASURES SHALL BE TAKEN TO MINIMIZE EROSION RELATED TO HAUL ROADS.
12. LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.
13. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
14. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY NON-TOXIC SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS, INACTIVE CONSTRUCTION AREAS (PREVIOUSLY GRADED AREAS INACTIVE FOR TEN DAYS OR MORE), AND STAGING AREAS AT THE CONSTRUCTION SITES.
15. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS, AND STAGING AREAS AT THE CONSTRUCTION SITES. WATER ASSOCIATED WITH SWEEPING SHALL NOT ENTER THE STORM DRAIN SYSTEM.
16. SWEEP PUBLIC STREETS ADJACENT TO CONSTRUCTION SITES DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO THE STREETS. WATER ASSOCIATED WITH SWEEPING SHALL NOT ENTER THE STORM DRAIN SYSTEM.
17. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE.
18. DELINEATE WITH FIELD MARKERS CLEARING LIMITS, SETBACKS, AND DRAINAGE COURSES.
19. BEST MANAGEMENT PRACTICES AS DEFINED IN THE SWPPP SHALL BE OPERABLE YEAR-ROUND.
20. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. STATE AND LOCAL LAWS CONCERNING THE POLLUTION ABATEMENT SHALL BE COMPLIED WITH.
21. CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE, AND LOCAL AGENCY REQUIREMENTS.
22. EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED. CHANGES TO THIS EROSION CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF THE PROJECT INSPECTOR.
23. PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OR FILTERS, DIKES, MULCHING, OR OTHER MEASURES AS APPROPRIATE.
24. IF NO WORK HAS PROGRESSED FOR A PERIOD OF 6 WEEKS, FINAL DRAINAGE AND EROSION CONTROL IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH AN APPROVED WINTERIZATION PLAN.
25. STABILIZE ALL DENUDED AREAS AND MAINTAIN EROSION CONTROL MEASURES CONTINUOUSLY YEAR ROUND. STABILIZING SHALL INCLUDE BOTH PROACTIVE MEASURES, SUCH AS THE PLACEMENT OF FIBER ROLLS, AND PASSIVE MEASURES, SUCH AS MINIMIZING VEGETATION REMOVAL AND STABILIZING DISTURBED AREAS WITH SOIL BINDERS.
26. ALL GRADED SURFACES AND MATERIALS, WHETHER FILLED, EXCAVATED, TRANSPORTED OR STOCKPILED, SHALL BE WETTED, PROTECTED OR CONTAINED IN SUCH A MANNER AS TO PREVENT ANY SIGNIFICANT NUISANCE FROM DUST, OR SPILLAGE UPON ADJOINING WATER BODY, PROPERTY, OR STREETS. EQUIPMENT AND MATERIALS ON THE SITE SHALL BE USED IN SUCH A MANNER AS TO AVOID EXCESSIVE DUST. A DUST CONTROL PLAN MAY BE REQUIRED AT ANYTIME DURING THE COURSE OF THE PROJECT.
27. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
28. USE SEDIMENT CONTROLS OR FILTRATION TO REMOVE SEDIMENT WHEN DEWATERING SITE AND OBTAINING ALL NECESSARY PERMITS.
29. TRUCK TIRES SHALL BE CLEANED PRIOR TO EXITING THE PROPERTY.
30. STUBBED-OUT ENDS OF PARTIALLY COMPLETED SUBDRAINS SHALL BE WRAPPED WITH AN APPROVED FABRIC TO PREVENT SOIL AND DEBRIS FROM ENTERING THE PIPE.
31. DISPOSAL AREAS FOR SEDIMENT SHALL BE DETERMINED IN THE FIELD. WHEN MATERIAL IS STOCKPILED, IT SHALL BE SURROUNDED BY FIBER ROLLS. IN ADDITION, A TARP SHALL BE PLACED OVER ALL STOCKPILES PRIOR TO A RAIN EVENT AND SHALL REMAIN IN PLACE DURING THE RAIN EVENT.
32. BORROW AND TEMPORARY STOCKPILES SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURES (TARPS, STRAW WATTLES, SILT FENCES ETC.) TO ENSURE SILT DOES NOT LEAVE THE SITE OR ENTER THE STORM DRAIN SYSTEM.
33. STOCKPILED MATERIAL:
    A. EXCAVATED SOILS SHOULD NOT BE PLACED IN STREETS OR ON PAVED AREAS.
    B. EXCAVATED SOILS SHOULD BE REMOVED FROM THE SITE BY THE END OF THE DAY, UNLESS STOCKPILING IS NECESSARY.
    C. SURROUND STOCKPILES WITH PERIMETER SILT FENCES, FIBER ROLLS, APPROPRIATELY-SIZED SECONDARY CONTAINMENT, OR OTHER RUNOFF CONTROLS.
    D. STABILIZE INACTIVE STOCKPILES WITH SOIL STABILIZER AND/OR MULCH.
    E. COVER STOCKPILES OF CRUSHED AC OR PCC PAVEMENT WITH A TARPAULIN OR PROVIDE CASE-SPECIFIC DESIGNED SECONDARY CONTAINMENT, AND SURROUND STOCKPILES WITH APPROPRIATE RUNOFF CONTROLS.
    F. USE INLET PROTECTION FOR STORM DRAIN STRUCTURES ADJACENT TO THE MATERIAL.
    G. THOROUGHLY SWEEP PAVED AREAS EXPOSED TO SOIL EXCAVATION PLACEMENT.
35. PADS SHALL BE GRADED TO MINIMIZE STANDING WATER. SPECIFIC LOCATIONS REQUIRING SUPPLEMENTAL GRADING TO ACHIEVE ACCEPTABLE DRAINAGE SHALL BE DETERMINED BY THE CONSTRUCTION MANAGER. ALL SPOILS AND SOIL STOCKPILES REMAINING ON SITE SHALL BE ENCIRCLED BY SILT FENCES/FIBER ROLLS.
36. TEMPORARY AND PERMANENT SLOPES GREATER THAN 3 FEET SHALL BE STABILIZED. TEMPORARY AND PERMANENT SLOPES GREATER THAN 5 FEET SHALL BE SEEDED UNLESS OTHERWISE SHOWN ON THE PLAN.
37. INSTALL FIBER ROLLS OR OTHER EROSION CONTROL MEASURES TO PREVENT SILT RUNOFF TO PUBLIC ROADWAYS.
38. INSTALL WIND BREAKS OR SILT FENCE AT THE WINDWARD SIDES OF THE CONSTRUCTION AREAS. SUSPEND EXCAVATION AND GRADING ACTIVITIES WHEN WIND (AS INSTANTANEOUS GUSTS) EXCEEDS 25 MILES PER HOUR.
39. A DUST PALLIATIVE SHALL BE APPLIED TO THE SITE WHEN REQUIRED BY THE CITY. THE TYPE AND RATE OF APPLICATION SHALL BE RECOMMENDED BY THE SOILS ENGINEER AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS, THE PLANNING AND BUILDING DEPARTMENT'S GEOTECHNICAL SECTION, AND THE REGIONAL WATER QUALITY CONTROL BOARD.
40. PERFORM CLEARING AND EARTH-MOVING ACTIVITIES ONLY DURING DRY WEATHER.
41. DURING THE RAINY SEASON, PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIALS AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO THE STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATER COURSES.
42. ALL EROSION CONTROL FACILITIES MUST BE INSPECTED AND REPAIRED DAILY DURING THE RAINY SEASON. ALL SLOPES SHALL BE REPAIRED AS SOON AS POSSIBLE WHEN DAMAGED. IF RILLS ARE OBSERVED, PUNCH STRAW/EMBANKMENT MATERIAL INTO VOIDS TO RE-ESTABLISH FINISH GRADE.
43. SEDIMENT AND DEBRIS SHALL BE REMOVED FROM TEMPORARY BASINS AND DRAIN INLETS AFTER EACH STORM. SLOPES SHALL BE REPAIRED AS SOON AS POSSIBLE WHEN DAMAGED.
44. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DURING GRADING OPERATION BEFORE OCTOBER 15 AND PRIOR TO INSTALLATION OF STORM DRAINAGE SYSTEM. SUCH ADDITIONAL MEASURES WILL BE CONTINGENT UPON THE STAGE OF GRADING OPERATION. CONTRACTOR SHALL IMPLEMENT ANY ADDITIONAL EROSION CONTROL MEASURES AS REQUIRED BY THE ENGINEER.
45. DISTURBED SLOPE AREAS SHALL BE HYDROSEEDED PRIOR TO OCTOBER 15.
46. SEED SHALL BE DELIVERED TO THE SITE IN SEALED CONTAINERS. CONTAINERS SHALL BE CLEARLY MARKED AS TO SPECIES, PURITY, PERCENT GERMINATION, DEALER'S GUARANTEE, AND DATES OF HARVEST AND TEST. THE SUPPLIER SHALL BE APPROVED BY THE ENGINEER AND THE SEED EXAMINED AT THE TIME CONTAINERS ARE OPENED.
47. HYDROSEEDING SHALL BE MADE IN THE FOLLOWING SINGLE APPLICATION:
    A. SEED FERTILIZER AND STABILIZING EMULSION WITH 2000 POUNDS OF MULCH PER ACRE. THE SEED SHOULD BE APPLIED WITHIN 30 MINUTES OF BEING ADDED TO THE SLURRY TANK.
    B. APPLICATION RATES FOR THE MULCH PRODUCTS WITH MOISTURE CONTENTS GREATER THAN 15% (FIFTEEN PERCENT) SHALL BE INCREASED BY THE FOLLOWING FACTOR C:

$$C = \frac{85}{\text{PERCENT FIBER (SOLIDS) IN PRODUCT}}$$

    C. FOLLOW UP APPLICATIONS SHALL BE MADE TO COVER WEAK SPOTS, TRENCHING BACKFILLS, OR OTHER DISTURBANCES AS DIRECTED BY THE ENGINEER.
48. MULCH SHALL BE A FIBROUS WOOD CELLULOSE MATERIAL CAPABLE OF UNIFORM SUSPENSION WHEN ADDED TO WATER AND AGITATED IN A SLURRY TANK. WATER CONTENT OF THE FIBER BEFORE MIXING INTO THE SLURRY SHALL NOT EXCEED 15% (FIFTEEN PERCENT) OF THE DRY WEIGHT OF THE FIBER, AS DETERMINED BY CALIFORNIA TEST NO. 226. COMMERCIALLY PACKAGED FIBER SHALL HAVE THE MOISTURE CONTENT MARKED ON THE PACKAGE. A CERTIFICATE OF COMPLIANCE MAY BE REQUIRED BY THE ENGINEER.
49. STABILIZER CAN BE TYPE M OR EQUAL, APPLIED AT 150 POUNDS PER ACRE FOR SLOPES. STABILIZING EMULSION SHALL CONFORM TO THE REQUIREMENTS IN SECTION 20-2.11, "STABILIZING EMULSION", OF THE CALTRANS STANDARD SPECIFICATION EXCEPT THAT THE STABILIZING SHALL BE ORGANIC DERIVATIVE SUCH AS GUM, A SEMI-REFINED SEAWEED EXTRACT, 100% UNREFINED WHEAT STARCH, OTHER SIMILAR PRODUCT, OR PROCESSED ORGANIC ADHESIVE USED AS A SOIL BINDER.
50. FERTILIZER SHALL BE 16-6-8 APPLIED AT 400 POUNDS PER ACRE.
51. LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.
52. WATER FOR HYDROMULCHING SHALL BE CLEAR. SUFFICIENT WATER SHALL BE ADDED TO THE SLURRY MIXTURE TO ENSURE UNIFORM DISTRIBUTION OF HYDROMULCH SOLIDS.
53. OTHER AGENTS SUCH AS PHOTO-CHEMICAL DYES, WATER PENETRANTS, AND TACKIFIERS MAY BE ADDED AT THE DISCRETION OF THE CONTRACTOR OR ENGINEER.
54. STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.
55. CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING PAVEMENT CUTTING WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASH WATER OR SEDIMENTS, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATERCOURSES.
56. AVOID CLEANING, FUELING, OR MAINTAINING VEHICLES ON-SITE, EXCEPT IN A DESIGNATED AREA WHERE WASH WATER IS CONTAINED AND TREATED.
57. SHOULD IT APPEAR THAT THE EROSION CONTROL PLAN, OR ANY OTHER MATTER THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE BKF PROJECT ENGINEER AT (650) 482-6300 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.

EROSION AND SEDIMENT CONTROL MEASURES

1. THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 15 TO APRIL 15. FACILITIES ARE TO BE OPERABLE PRIOR TO OCTOBER 15 OF ANY YEAR. GRADING OPERATIONS DURING THE RAINY SEASON WHICH LEAVE DENUDED SLOPES SHALL BE PROTECTED WITH EROSION CONTROL MEASURES IMMEDIATELY FOLLOWING GRADING ON THE SLOPES.
2. THIS PLAN COVERS ONLY THE FIRST RAINY SEASON FOLLOWING GRADING WITH ASSUMED SITE CONDITIONS AS SHOWN ON THE EROSION CONTROL PLAN. PRIOR TO OCTOBER 15, THE COMPLETION OF SITE IMPROVEMENT SHALL BE EVALUATED AND REVISIONS MADE TO THIS PLAN AS NECESSARY WITH THE APPROVAL OF THE CITY ENGINEER. PLANS ARE TO BE RESUBMITTED FOR THE CITY APPROVAL PRIOR TO OCTOBER 15 OF EACH SUBSEQUENT YEAR UNTIL SITE IMPROVEMENTS ARE ACCEPTED BY THE CITY.
3. PROPOSED BEST MANAGEMENT PRACTICES TO REDUCE POLLUTANTS IN STORM WATER DISCHARGES WILL BE IMPLEMENTED ON SITE, INCLUDING MINIMIZATION AND STABILIZATION OF DISTURBED AREAS, PROTECTION OF SLOPES AND CHANNELS, PERIMETER CONTROLS, INTERNAL EROSION CONTROL, AND SPECIFIC BEST MANAGEMENT PRACTICES.
4. THE LIMITS OF GRADING SHALL BE STAKED PRIOR TO GRADING OPERATIONS. VEHICLES AND EQUIPMENT SHALL BE LIMITED TO THE EXISTING ROADS AND TO WITHIN THE GRADING LIMITS. VEHICLE PARKING SHALL BE ALLOWED IN DESIGNATED VEHICLE STORAGE AREAS ONLY.
5. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL CONSTRUCTION AND STORAGE ACTIVITIES FOR EACH PHASE OF CONSTRUCTION.
6. STABILIZED CONSTRUCTION ENTRANCE – A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED FOR REDUCING THE AMOUNT OF MUD THAT IS TRACKED FROM THE SITE TO THE STORM DRAIN SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING STABILIZED CONSTRUCTION ENTRANCES AS CONSTRUCTION PHASES DICTATE. AS AN OPTION, CONTRACTOR MAY USE WHEEL WASHERS. IF WHEEL WASHING IS USED, ALL WATER MUST BE EITHER RECYCLED, INFILTRATED OR OTHERWISE USED ON-SITE.
7. CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE WAYS.
8. CONTRACTOR SHALL MAINTAIN STABILIZED ENTRANCE AT EACH VEHICLE ACCESS TO EXISTING PAVED STREETS. MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY AND AS REQUIRED BY THE CITY.
9. IF HYDROSEEDING IS NOT USED OR IS NOT EFFECTIVE BY 10/10, THEN OTHER IMMEDIATE METHODS SHALL BE IMPLEMENTED, SUCH AS EROSION CONTROL BLANKETS, OR A THREE-STEP APPLICATION OF 1) SEED, MULCH, FERTILIZER 2) BLOWN STRAW 3) TACKIFIER AND MULCH.
10. FIBER ROLL BARRIER – FIBER ROLL BARRIERS SHALL BE PROVIDED AS REQUIRED BY THE CONSTRUCTION GENERAL PERMIT. AT A MINIMUM, FIBER ROLLS SHALL BE PROVIDED (1) ON DISTURBED SLOPES AND (2) PERPENDICULAR TO ALL CONCENTRATED FLOW PATHS. ON EMBANKMENTS, FIBER ROLL BARRIERS SHALL BE PLACED ON CONTOUR WITH AN ELEVATION DEVIATION OF NO MORE THAN 2 INCHES EXCEPT AT END TERMINATION POINTS. END TERMINATIONS SHALL BE AT LEAST 6-INCHES HIGHER IN ELEVATION THAN THE REMAINING FIBER ROLL WHERE FEASIBLE. FIBER ROLLS SHALL BE CONNECTED BY WRAPPING ENDS WITH MINIMUM 18-INCH OVERLAP.
11. INLET PROTECTION SHALL BE INSTALLED AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT.
12. QSP SHALL INSPECT ALL INLETS AS A PART OF THE REQUIRED PRE-STORM INSPECTION. ALL INLETS SHALL HAVE FULL CAPACITY. ANY RESTRICTION TO FULL INLET CAPACITY SHALL BE REMOVED INCLUDING FILTER FABRIC GRATE COVERS. FIBER ROLLS SURROUNDING INLETS SHALL BE PLACED SUCH THAT FLOW WILL OVERTOP INTO THE INLET AND WILL NOT CAUSE OVERTOPPING OR FLOODING OF ADJACENT PROPERTIES.

MAINTENANCE NOTES

1. MAINTENANCE IS TO BE PERFORMED AS FOLLOWS:
   A. REPAIR DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION AT THE END OF EACH WORKING DAY.
   B. SWALES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED AS NEEDED.
   C. SEDIMENT TRAPS, BERMS, AND SWALES ARE TO BE INSPECTED AFTER EACH STORM AND REPAIRS MADE AS NEEDED.
   D. SEDIMENT SHALL BE REMOVED AND SEDIMENT TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1 FOOT.
   E. SEDIMENT REMOVED FROM TRAP SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
   F. RILLS AND GULLIES MUST BE REPAIRED.
2. GRAVELBAG INLET PROTECTION SHALL BE CLEANED OUT WHENEVER SEDIMENT DEPTH IS ONE HALF THE HEIGHT OF ONE GRAVELBAG.

ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO START OF CONSTRUCTION AND MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE AREA IS STABILIZED.

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LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER CHARLES J. PLIMAL No. 53325 CIVIL STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
EROSION CONTROL NOTES

HUNTERS POINT PHASE II — CITY AND COUNTY OF SAN FRANCISCO — CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale N/A
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number: C9.0

DRAWING NAME: J:\Eng11\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C9.0-C9.4 EROSION CONTROL PLAN, NOTES, & DETAILS.dwg
PLOT DATE: 08-12-15 PLOTTED BY: chuk

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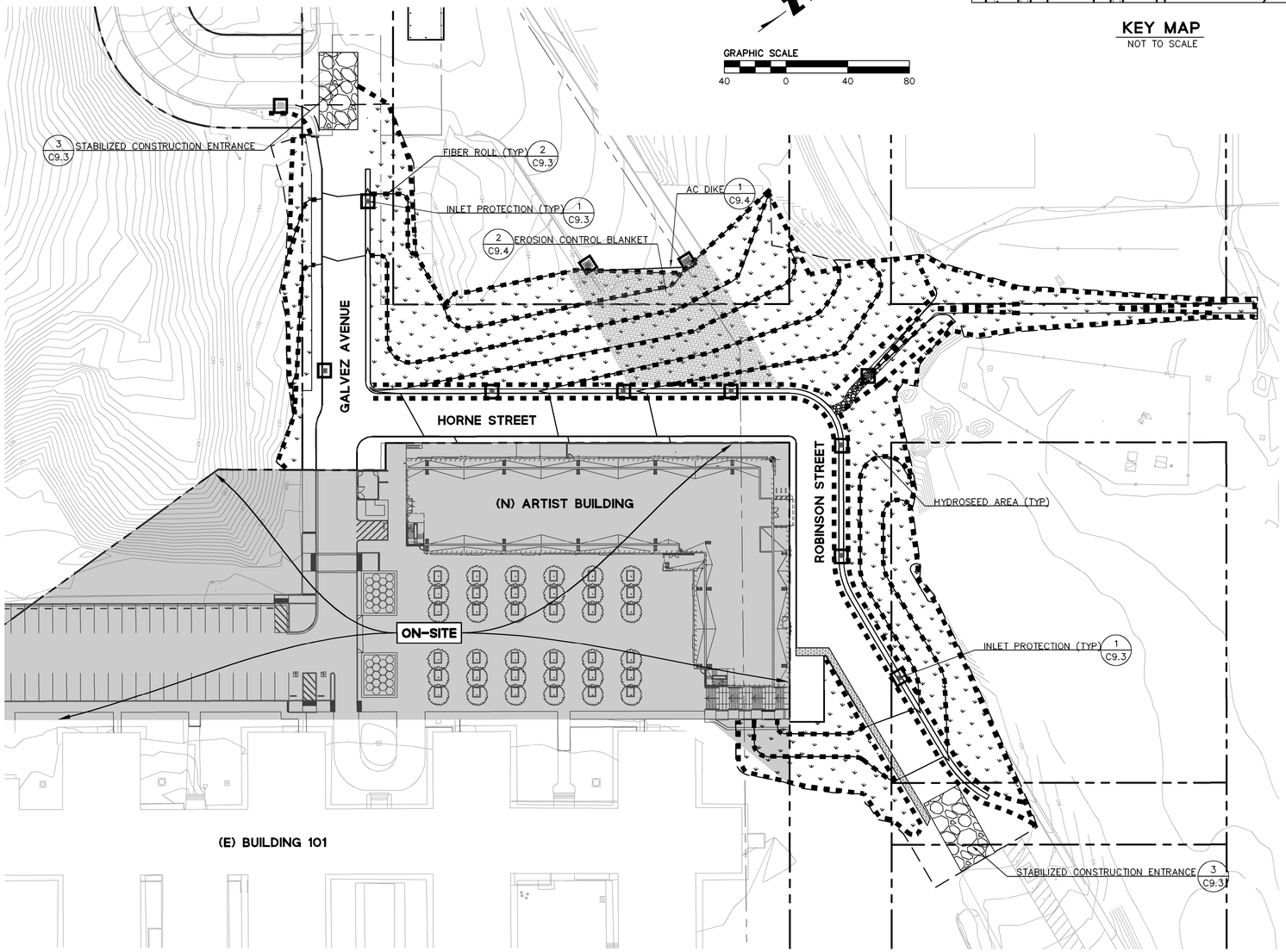
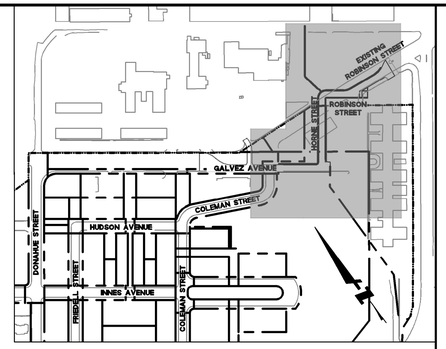
EROSION AND SEDIMENT CONTROL LEGEND:

- INLET PROTECTION — 1 / C9.3
- FIBER ROLL — 2 / C9.3
- STABILIZED CONSTRUCTION ENTRANCE — 3 / C9.3
- AC CURB/BERM — 1 / C9.4
- TWO-SIDED EROSION CONTROL BLANKET, OR APPROVED EQUAL — 2 / C9.4
- HYDROSEED AREA

EROSION AND SEDIMENT CONTROL BMP NOTES:

1. CONSTRUCTION BMPS WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE PERMANENT SITE IMPROVEMENTS AND STORMWATER TREATMENT FACILITIES ARE IN PLACE.
2. THE SITE-WIDE AND PROJECT SWPPPS SHALL BE ADHERED TO THROUGHOUT CONSTRUCTION FOR ALL INTERIM IMPROVEMENTS.





KEY MAP
NOT TO SCALE

GRAPHIC SCALE
40 0 40 80

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ENGINEERS | SURVEYORS | PLANNERS
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REGISTERED PROFESSIONAL ENGINEER
CHARLES J. PLIMAL
No. 53325
CIVIL
STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
OFF-SITE EROSION CONTROL

CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

Date	06/12/2015
Scale	AS SHOWN
Design	LW
Drawn	KC
Approved	CH
Job No	20110162

No.	Date	Revisions	City Approval

Drawing Number:
C9.1

DRAWING NAME: J:\Engi1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C9.0-C9.4 EROSION CONTROL PLAN, NOTES, & DETAILS.dwg
PLOT DATE: 08-12-15 PLOTTED BY: chuk

SHEET NOTES

1. SEE SHEET C9.0 FOR EROSION CONTROL NOTES.

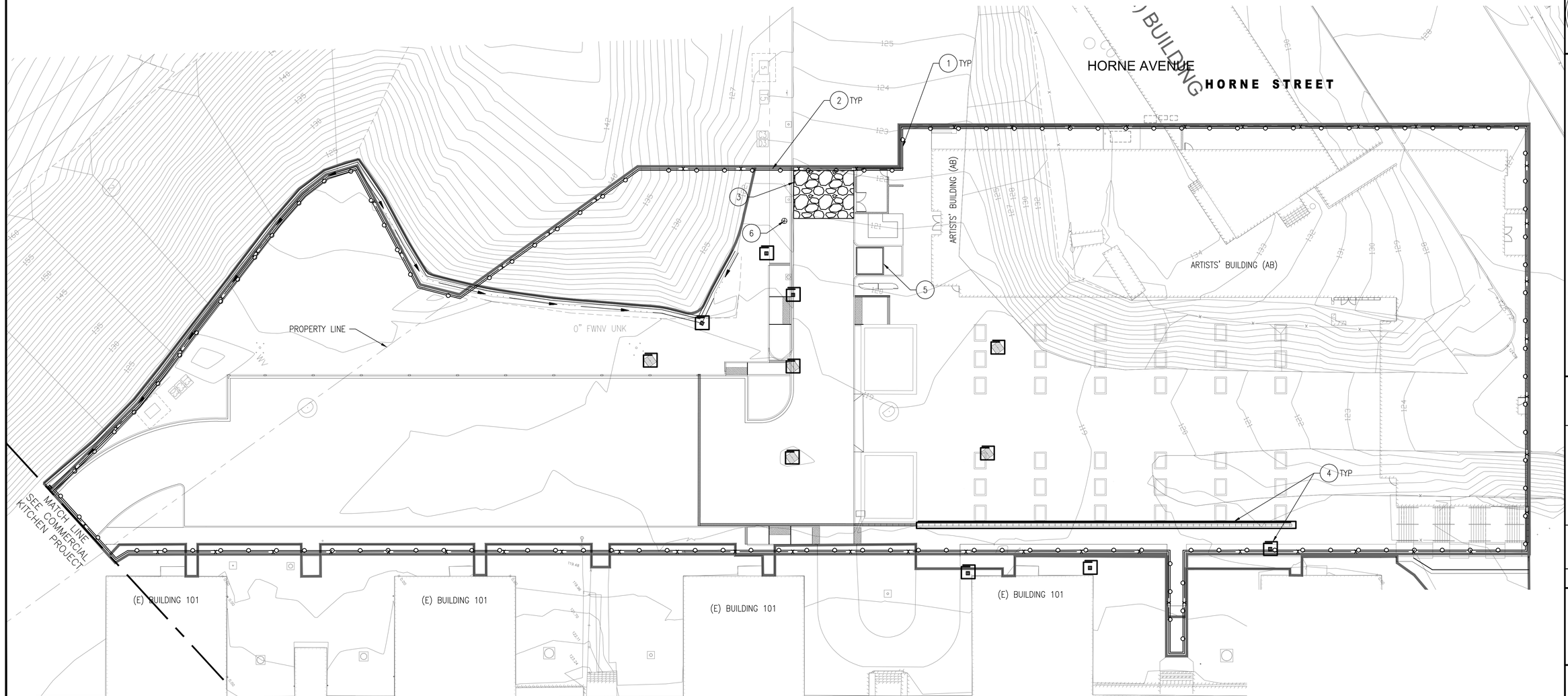
LEGENDS AND ABBREVIATIONS

ITEM	SYMBOL	DESCRIPTION	DETAILS
1	—○—	FIBER ROLL	2 / C9.3
2	—x—	SILT FENCE	4 / C9.3
3		STABILIZED CONSTRUCTION ENTRANCE & WASHDOWN AREA	3 / C9.3
4		INLET/CATCH BASIN PROTECTION	1 / C9.3
5		CONCRETE WASHOUT	5 / C9.3
6	⊕	TEMPORARY WATER SUPPLY AND HOSE	–

REFERENCE

20 10 0 20 40

SCALE: 1" = 20'



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BUILDING 101 ARTISTS SUB-PHASE

HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
EROSION CONTROL PLAN

CITY AND COUNTY OF SAN FRANCISCO — CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design MC
Drawn AN
Approved MC
Job No 20110162

Drawing Number:
C9.2
OF

DRAWING NAME: P:\13006.100_HPS2-CP Artist Building\3_Dwg_Artist Building\C10.01-EROSION CONTROL PLAN_MC&D.dwg
PLOT DATE: 08-10-15 PLOTTED BY: Joe

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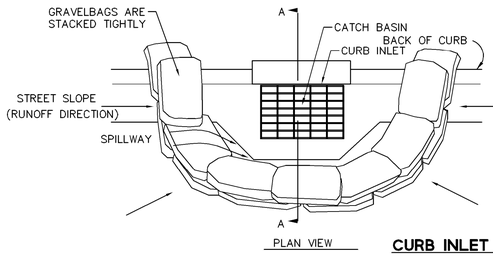
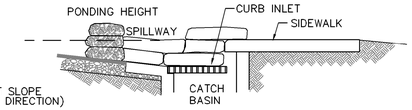
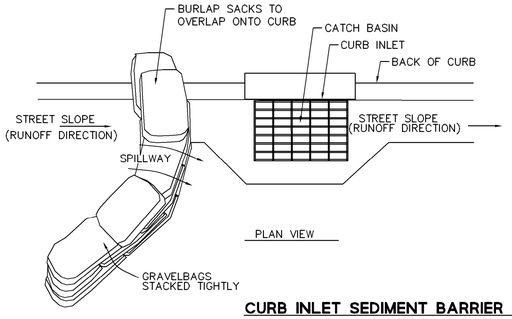


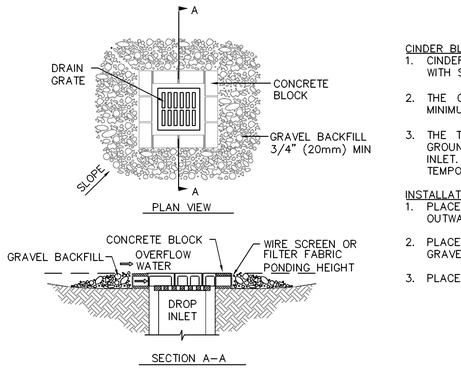


CURB INLET SEDIMENT BARRIER – SUMP



CURB INLET SEDIMENT BARRIER NOTES:
1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREETS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. BAGS OF EITHER BURLAP OR WOVEN GEOTEXTILE FABRIC ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.
3. LEAVE ONE GRAVELBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY OVERFLOW. TOP OF SPILLWAY SHALL BE LOWER THAN TOP OF CURB.
4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT, SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

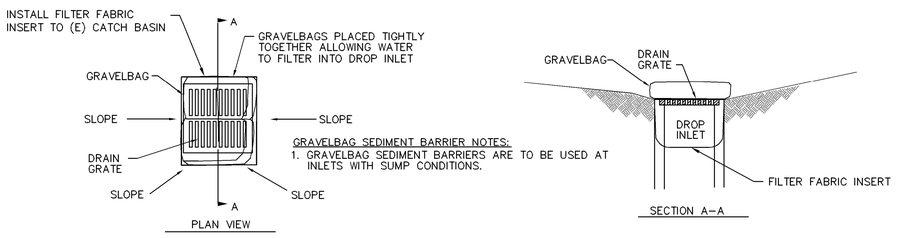
CURB INLET SEDIMENT BARRIER – CONTINUOUS GRADE



CINDER BLOCK AND GRAVEL SEDIMENT BARRIER NOTES:
1. CINDER BLOCK AND GRAVEL SEDIMENT BARRIERS ARE TO BE USED AT INLETS WITH SUMP CONDITIONS.
2. THE GRAVEL FILTER SHALL BE CONSTRUCTED OF GRADED ROCK, 3/4–INCH MINIMUM.
3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BY–PASSING THE INLET. EXCAVATION OF A BASIN ADJACENT TO THE DROP INLET OR A TEMPORARY DIKE ON THE DOWNSLOPE OF THE STRUCTURE MAY BE NECESSARY.

INSTALLATION PROCEDURE:
1. PLACE CONCRETE BLOCKS ON THEIR SIDES. THE BLOCK OPENINGS SHOULD FACE OUTWARDS, NOT UPWARDS, SO THAT WATER CAN FLOW THROUGH.
2. PLACE FABRIC OVER THE OUTSIDE FACE OF THE CINDER BLOCKS TO PREVENT GRAVEL FROM BEING WASHED THROUGH THE BLOCK OPENINGS.
3. PLACE GRAVEL FILTER AGAINST THE FABRIC TO THE TOP OF THE BARRIER.

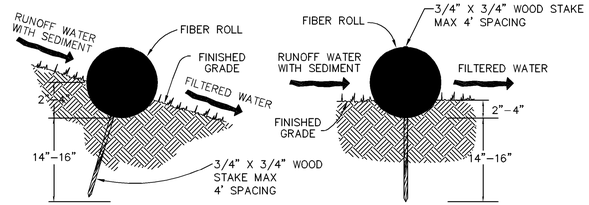
CINDER BLOCK AND GRAVEL SEDIMENT BARRIER



GRAVELBAG SEDIMENT BARRIER NOTES:
1. GRAVELBAG SEDIMENT BARRIERS ARE TO BE USED AT INLETS WITH SUMP CONDITIONS.

GRAVELBAG SEDIMENT BARRIER

1 INLET PROTECTION
NTS

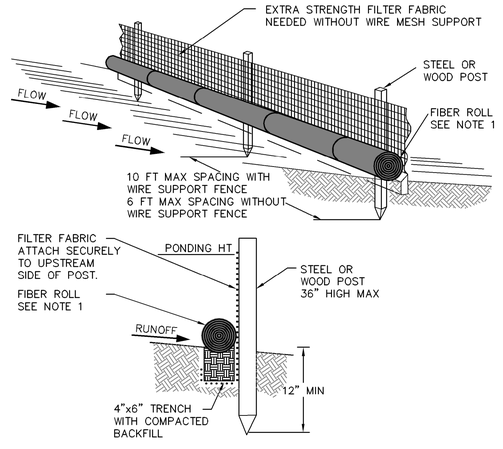


ENTRENCHMENT DETAIL IN SLOPE AREA

ENTRENCHMENT DETAIL IN FLAT AREA

FIBER ROLL NOTES:
1. PREPARE SLOPE BEFORE THE FIBER ROLL PROCEDURE IS STARTED.
2. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 2" TO 4" DEEP, RUN PARALLEL TO THE CONTOUR. INSTALL FIBER ROLL FROM THE BOTTOM OF THE SLOPE AND WORK UP.
3. USE A STRAIGHT BAR TO DRIVE HOLES THROUGH THE FIBER ROLL AND INTO THE SOIL FOR WOODEN STAKES.
4. DRIVE THE STAKE THROUGH THE PREPARED HOLE INTO THE SOIL.
5. INSTALL STAKES AT LEAST EVERY THREE FEET APART THROUGH THE FIBER ROLL.
6. ADJACENT FIBER ROLLS SHALL OVERLAP A MINIMUM OF 18 INCHES.
7. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.
8. INSTALL AT LOCATIONS SHOWN ON PLANS. IF FIBER ROLS ARE NOT SHOWN ON PLANS IN SLOPED AREAS, SPACE FIBER ROLLS EVERY 10 VERTICAL FEET ALONG CONTOUR.
9. ADD J–HOOKS TO THE ENDS OF ALL FIBER ROLLS ON SLOPED AREAS.

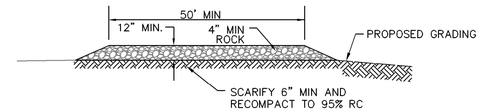
2 FIBER ROLL
NTS


EXTRA STRENGTH FILTER FABRIC NEEDED WITHOUT WIRE MESH SUPPORT
STEEL OR WOOD POST
FLOW
FLOW
FLOW
FIBER ROLL SEE NOTE 1
10 FT MAX SPACING WITH WIRE SUPPORT FENCE 6 FT MAX SPACING WITHOUT WIRE SUPPORT FENCE
FILTER FABRIC ATTACH SECURELY TO UPSTREAM SIDE OF POST.
PONDING HT
STEEL OR WOOD POST 36" HIGH MAX
FIBER ROLL SEE NOTE 1
RUNOFF
12" MIN
4"x6" TRENCH WITH COMPACTED BACKFILL

STANDARD DETAIL TRENCH WITH NATIVE BACKFILL

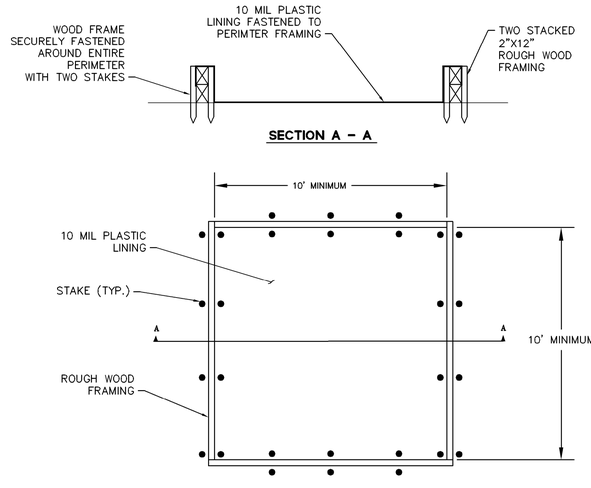
NOTES:
1. FIBER ROLL SHALL BE PLACED CONTINUOUSLY WITH 24" MIN OVERLAP BETWEEN SEGMENTS. SEE DETAIL 2 FOR MORE FIBER ROLL INFORMATION.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF–SITE AND CAN BE PERMANENTLY STABILIZED.
4. SILT FENCE SHALL BE PLACED PER PLAN ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
5. ADD SILT FENCING AT TOE OF SLOPE.

4 SILT FENCE WITH FIBER ROLL
NTS



NOTES:
1. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE DESIGNED AND MAINTAINED IAW 2013 CFC, CHAPTER 5, 503.2.3.MVW 45,000 LBS.
2. SCARIFY THE TOP 6" OF SUBGRADE AND RECOMPACT TO AT LEAST 95% RELATIVE COMPACTION.
3. THE LOCATIONS SHOWN ARE FOR INFORMATION ONLY. CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT–OF–WAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL ROCK AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT–OF–WAYS SHALL BE REMOVED IMMEDIATELY.
4. WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT–OF–WAYS. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED ROCK THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. SEDIMENT SHALL BE PREVENTED FROM ENTERING THE STORM DRAIN, DITCH, OR WATERCOURSE THROUGH USE OF INLET PROTECTION (E.G. GRAVELBAGS OR OTHER APPROVED METHODS).
5. THE MATERIAL FOR CONSTRUCTION OF THE PAD SHALL BE 4" MIN ROCK.
6. THE THICKNESS OF THE PAD SHALL NOT BE LESS THAN 12". THE WIDTH OF THE PAD SHALL NOT BE LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS, OR 25', WHICHEVER IS LESS.
7. THE LENGTH OF THE PAD SHALL NOT BE LESS THAN 50'.
8. THE WIDTH OF THE PAD SHALL NOT BE LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS, OR 25', WHICHEVER IS LESS.

3 STABILIZED CONSTRUCTION ENTRANCE
NTS



5 CONCRETE WASHOUT
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LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER CHARLES J. PALMAY No. 53325 CIVIL STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB–PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
EROSION CONTROL DETAILS

CITY AND COUNTY OF SAN FRANCISCO, CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale N/A
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number: C9.3

DRAWING NAME: J:\Engl\110162\DWG\HP Major Phase 1\Building 101 Artists Sub–Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C9.0–C9.4 EROSION CONTROL PLAN, NOTES, & DETAILS.dwg
PLOT DATE: 08–12–15 PLOTTED BY: chuk

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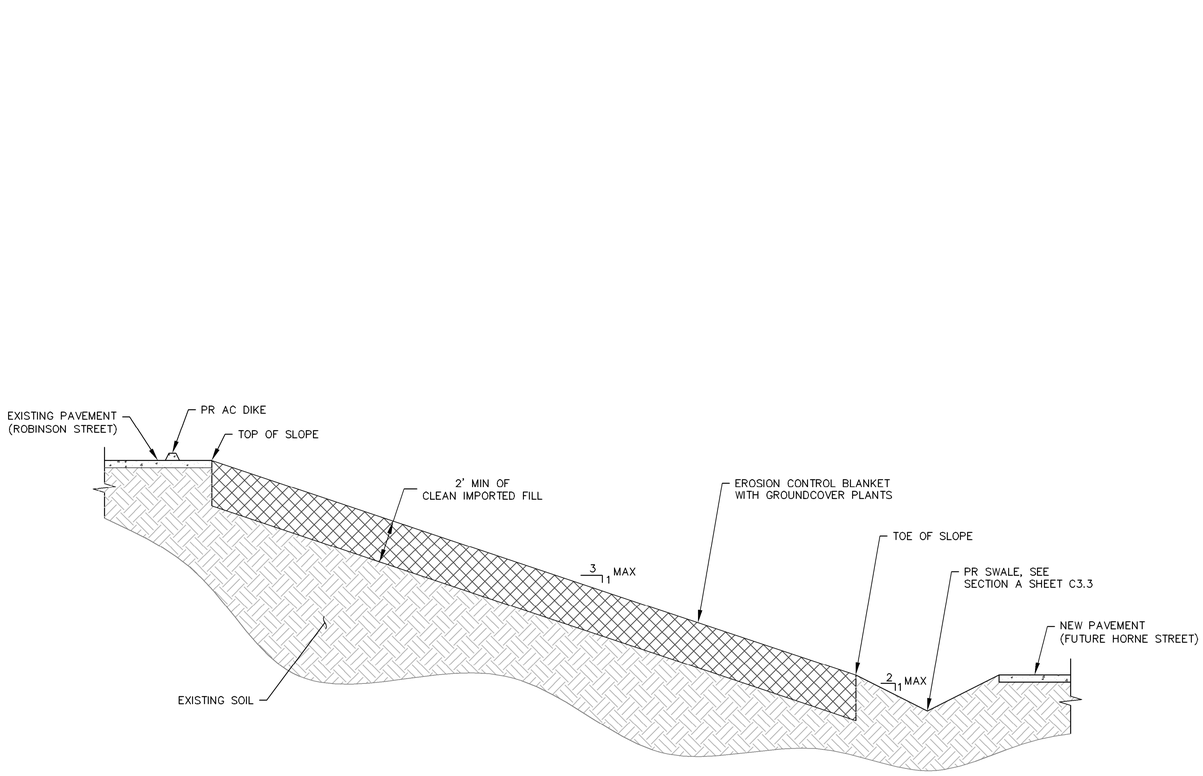
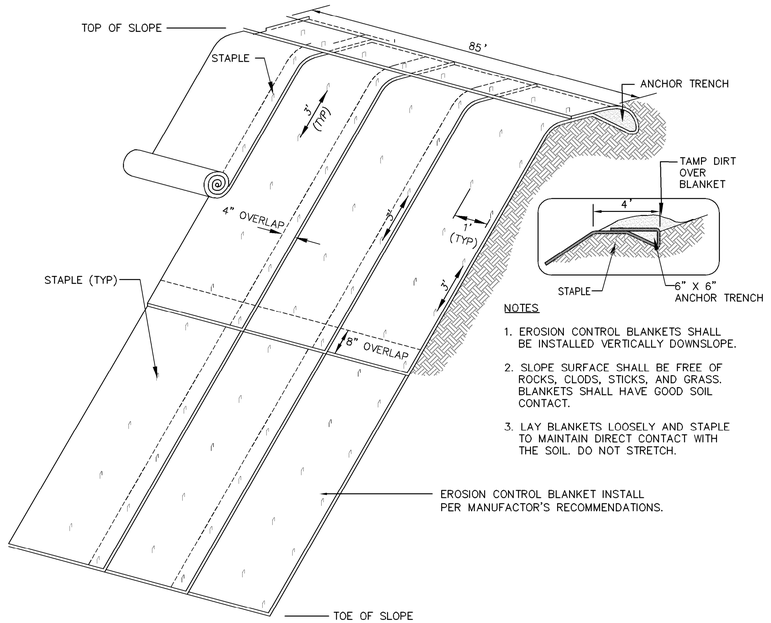

EXISTING PAVEMENT (ROBINSON STREET)
PR AC DIKE
TOP OF SLOPE
2' MIN OF CLEAN IMPORTED FILL
EROSION CONTROL BLANKET WITH GROUNDCOVER PLANTS
TOE OF SLOPE
3 1 MAX
PR SWALE, SEE SECTION A SHEET C3.3
NEW PAVEMENT (FUTURE HORNE STREET)
2 1 MAX
EXISTING SOIL

3 DURABLE COVER

NTS

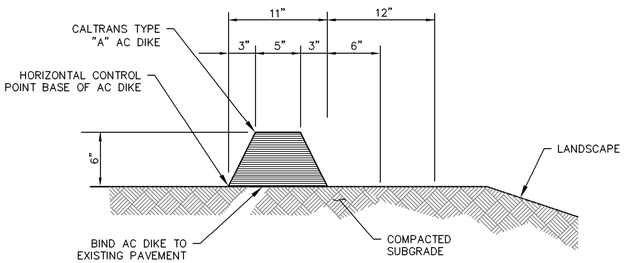


NOTES

1. EROSION CONTROL BLANKETS SHALL BE INSTALLED VERTICALLY DOWNSLOPE.
2. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS. BLANKETS SHALL HAVE GOOD SOIL CONTACT.
3. LAY BLANKETS LOOSELY AND STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

2 TEMPORARY EROSION CONTROL BLANKET

NTS



1 AC DIKE

NTS

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LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER
CHARLES J. PLIMPTON
No. 53325
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STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
EROSION CONTROL DETAILS

CALIFORNIA
CITY AND COUNTY OF SAN FRANCISCO

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale N/A
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C9.4

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C9.0-C9.4 EROSION CONTROL PLAN, NOTES, & DETAILS.dwg
PLOT DATE: 08-12-15 PLOTTED BY: chuk

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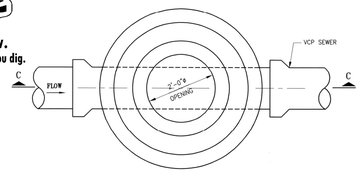
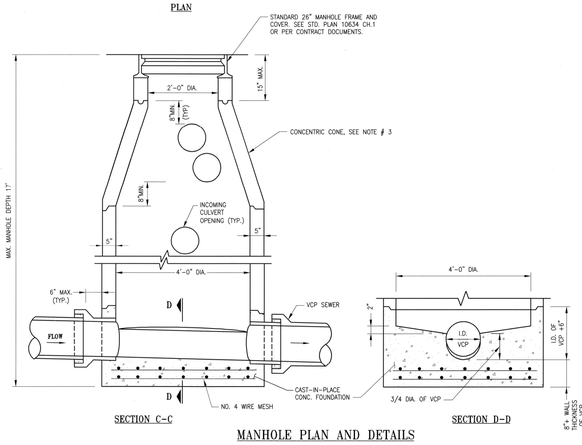


PLAN



SECTION C–C

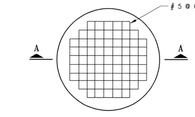
SECTION D–D

MANHOLE PLAN AND DETAILS

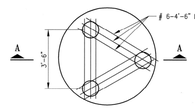
This Standard Plan was developed for use on public works projects in the City and County of San Francisco, and shall not be used without consulting a Registered Professional Engineer. The Department of Public Works reserves the right to make revisions to this Standard Plan at any time.

NOTES

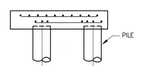
1. MANHOLE FRAME AND ALL JOINTS SHALL BE SET IN CLASS "C" MORTAR.
2. ALL PRECAST COMPONENTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C-478.
3. VERTICAL WALL OF CONCENTRIC CONE SHALL BE ON UPSTREAM SIDE OF MANHOLE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. CAST-IN-PLACE CONCRETE FOUNDATION SHALL BE CLASS 6-3000-3/4.
5. CULVERT OPENINGS SHALL BE A MINIMUM OF 8" FROM PRECAST SECTION JOINTS.
6. CONTRACTOR SHALL MINIMIZE NUMBER OF SECTION RINGS BY UTILIZING LARGEST SECTIONS AVAILABLE.
7. STEEL REINFORCEMENT IN CONCRETE FOUNDATION IS NOT REQUIRED IF MANHOLE IS NOT PILE SUPPORTED.
8. SIDE SEWER CONNECTIONS TO THE MANHOLE SHALL NOT BE HIGHER THAN 12" ABOVE THE INVERT OF THE MANHOLE.
9. CULVERT CONNECTIONS SHALL BE FLUSH WITH INSIDE FACE OF THE MANHOLE WALL.
10. MANHOLE DEPTH SHALL NOT EXCEED 17'.



TOP REINFORCING STEEL



BOTTOM REINFORCING STEEL



SECTION A–A

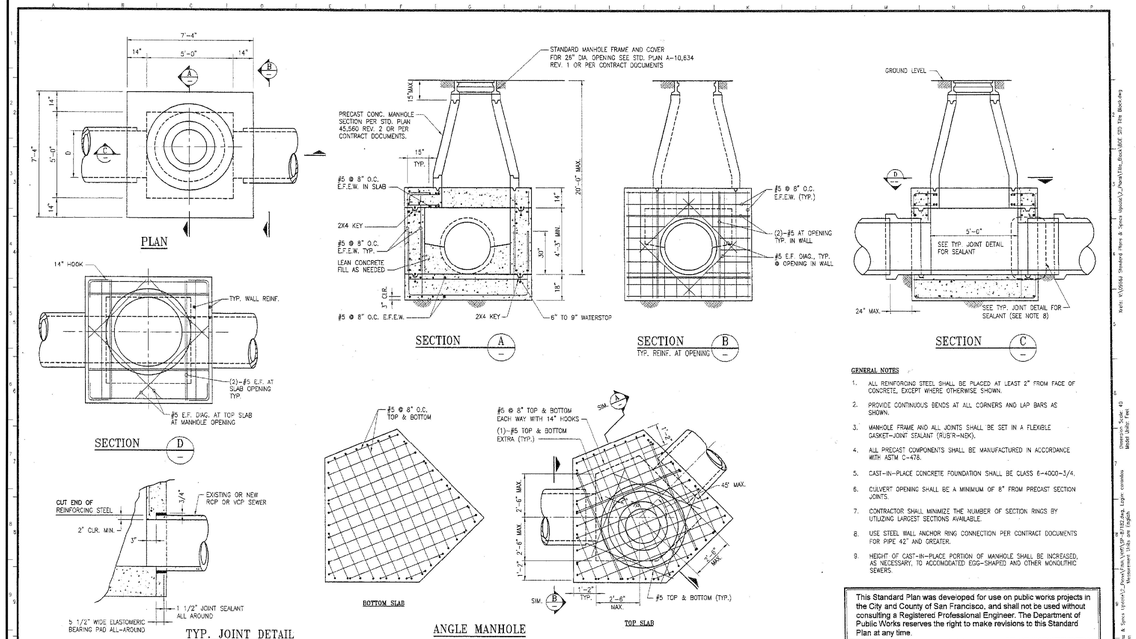
REINFORCED CONCRETE FOUNDATION FOR MANHOLE ON PILES

NO.	DATE	DESCRIPTION	BY	APP.	REFERENCE INFORMATION & FILE NO. OF SURVEYS	REVISED: DATE:	PLANS APPROVAL DATE: APRIL 30, 2007
		TABLE OF REVISIONS				ID 12/2006	
		CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				DRAWN: DATE:	SECTION MANAGER
						AM/JL 07/2003	DEPUTY BUREAU MANAGER
						CHECKED: DATE:	BUREAU MANAGER
						KS 12/2006	

BUREAU OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF SAN FRANCISCO

STANDARD PLAN
HYDRAULICS
PRECAST CONCRETE MANHOLE FOR 12" AND 24" DIAMETER SEWERS

OLD FILE NO. 45,560 CH 1
FILE NO. 87,181
REV. NO.



GENERAL NOTES

1. ALL REINFORCING STEEL SHALL BE PLACED AT LEAST 2" FROM FACE OF CONCRETE, EXCEPT WHERE OTHERWISE SHOWN.
2. PROVIDE CONTINUOUS BENDS AT ALL CORNERS AND LAP BARS AS SHOWN.
3. MANHOLE FRAME AND ALL JOINTS SHALL BE SET IN A FLEXIBLE GASKET-JOINT SEALANT (RUB'R-NEK).
4. ALL PRECAST COMPONENTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C-478.
5. CAST-IN-PLACE CONCRETE FOUNDATION SHALL BE CLASS 6-4000-3/4.
6. CULVERT OPENING SHALL BE A MINIMUM OF 8" FROM PRECAST SECTION JOINTS.
7. CONTRACTOR SHALL MINIMIZE THE NUMBER OF SECTION RINGS BY UTILIZING LARGEST SECTIONS AVAILABLE.
8. USE STEEL WALL ANCHOR RING CONNECTION PER CONTRACT DOCUMENTS FOR PIPE 42" AND GREATER.
9. HEIGHT OF CAST-IN-PLACE PORTION OF MANHOLE SHALL BE INCREASED, AS NECESSARY, TO ACCOMODATED EGG-SHAPED AND OTHER MONOLITHIC SEWERS.

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NO.	DATE	DESCRIPTION	BY	APP.	REFERENCE INFORMATION & FILE NO. OF SURVEYS	REVISED: DATE:	PLANS APPROVAL DATE: APRIL 30, 2007
		TABLE OF REVISIONS				ID 12/2006	
		CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				DRAWN: DATE:	SECTION MANAGER
						AM 07/2003	DEPUTY BUREAU MANAGER
						CHECKED: DATE:	BUREAU MANAGER
						KS 12/2006	

BUREAU OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF SAN FRANCISCO

STANDARD PLAN
HYDRAULICS
STANDARD CONCRETE MANHOLE FOR PIPE SEWERS 27" TO 48" DIAMETER

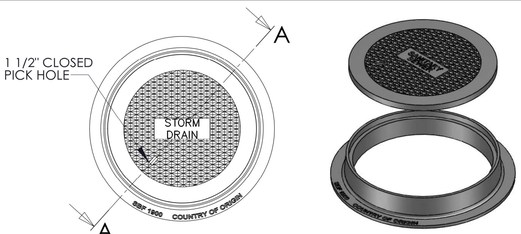
OLD FILE NO. 48,057 CH 3
FILE NO. 87,182
REV. NO.

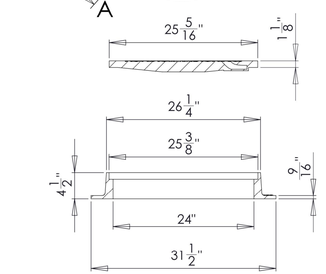
1 12"–24" STORM DRAIN MANHOLE
NTS

2 27"–48" STORM DRAIN MANHOLE
NTS

South Bay Foundry
WWW.SOUTHBAYFOUNDRY.COM
PHONE: (619) 956-2780 FAX: (619) 956-2788

SBF 1900 CPH
24" MANHOLE
FRAME AND COVER
SANITARY SEWER





SECTION A-A

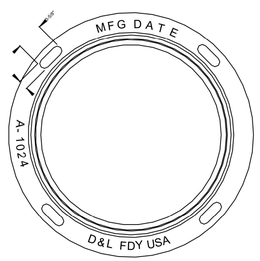
SET WEIGHT	
FRAME	140 LB
COVER	130 LB
TOTAL	270 LB

GENERAL INFORMATION

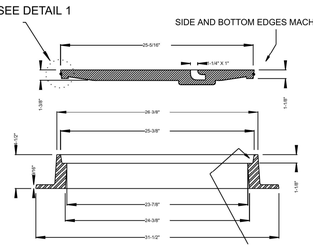
*MATERIALS CONFORM TO ASTM A48 CLASS 35B
*BEARING SURFACES MACHINED FOR CLOSE, QUIET FIT
*CASTINGS SHALL BE DIPPED IN BLACK BITUMINOUS PAINT
*FRAME AND COVER MEETS H-20 WHEEL LOADING

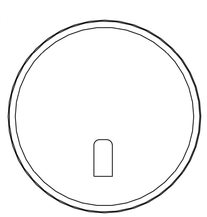
APPROVED
BY:
TITLE:
AGENCY:
DATE:

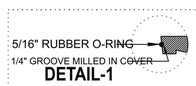
A-1024 Manhole Ring & Cover



SEE DETAIL 1





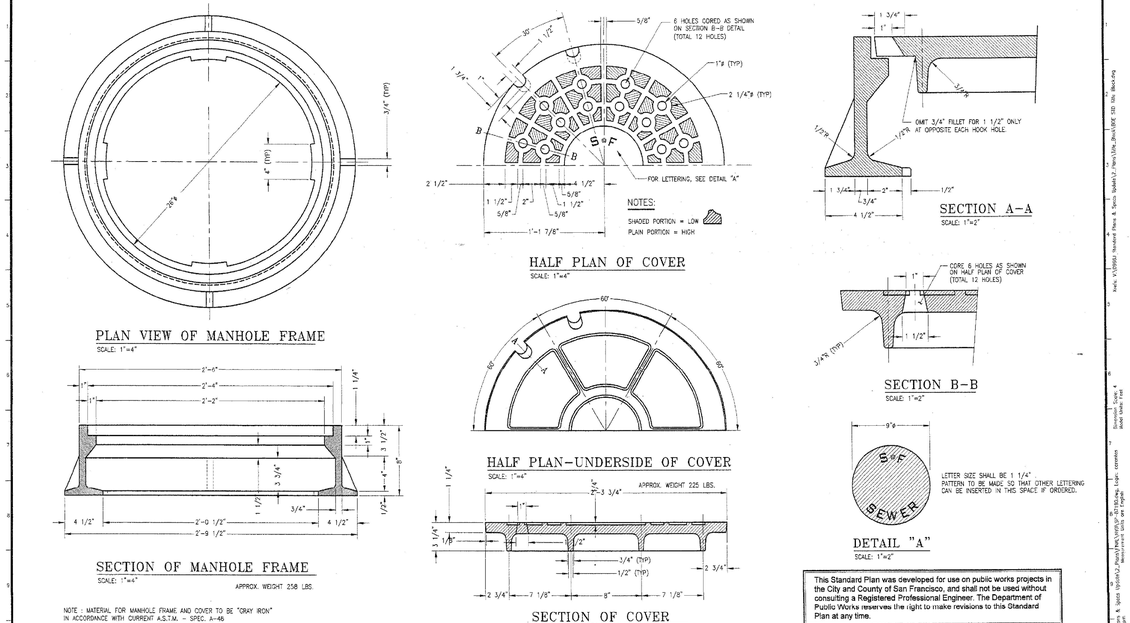


DETAIL-1

CAST IRON conforms to	D&L model No.A-1024	
ASTM A-48-93 Class 35B	Estimated Weight of A-1024	
Meets H-20 Wheel Loading	Cover	140 lbs
	Ring	130 lbs
	Total	270 lbs
Designation: A-1024	Date: January 2002	Prepared by: Jesse Walker D&L Supply (not to scale)

D&L Foundry & Supply
CA Sales: (707) 557-4525 fax: (707) 557-4655
UT Sales: (801) 785-5015 fax: (801) 785-0835
WA Sales: (509) 765-7952 fax: (509) 765-8124

3 STORM DRAIN MANHOLE COVER
NTS



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NO.	DATE	DESCRIPTION	BY	APP.	REFERENCE INFORMATION & FILE NO. OF SURVEYS	REVISED: DATE:	PLANS APPROVAL DATE: APRIL 30, 2007
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						KS 12/2006	

BUREAU OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF SAN FRANCISCO

STANDARD PLAN
HYDRAULICS
STANDARD 26" MANHOLE FRAME & COVER

OLD FILE NO. A-10,634
FILE NO. 87,190
REV. NO.

BKF
255 SHORELINE DRIVE, STE 200
REDWOOD CITY, CA 94065
650/482-6300
650/482-6399 (FAX)
ENGINEERS | SURVEYORS | PLANNERS

LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER
CHARLES J. PALMAI
No. 53325
CIVIL
STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE

G PLANS

CALIFORNIA

HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY DETAILS

CITY AND COUNTY OF SAN FRANCISCO

No.	Date	Revisions	City Approval

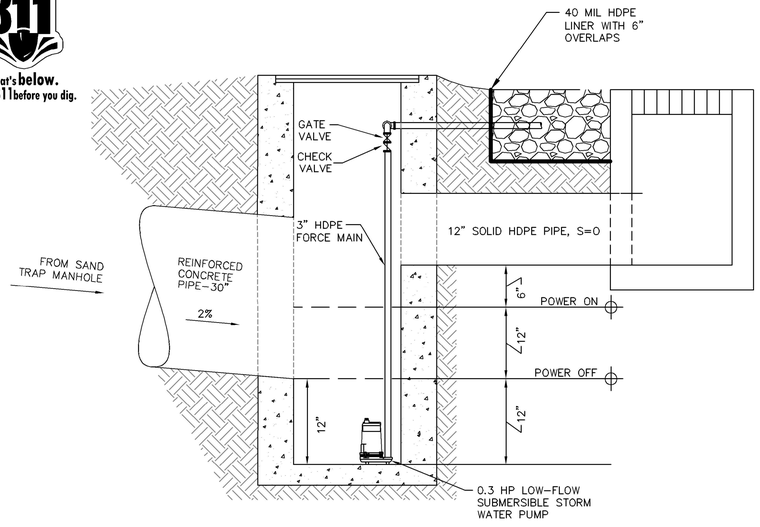
Date 08/12/2015
Scale N/A
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C10.0

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C10.0-C10.3 UTILITY SECTIONS & DETAILS.dwg
PLOT DATE: 08-12-15 PLOTTED BY: chuk

© BKF Engineers

Know what's below. Call 811 before you dig.

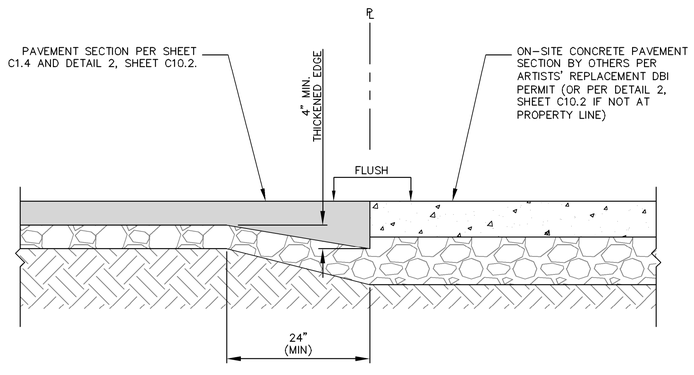


NOTES:

ADDITIONAL EQUIPMENT FOR PUMP

1. INSTALL PUMP PER MANUFACTURER'S RECOMMENDATIONS.
2. CONTRACTOR SHALL SUPPLY A COMPLETELY SELF-CONTAINED MOTOR CONTROL PANEL FOR SIMPLEX PUMP. THE CONTROL PANEL SHALL PROVIDE SHORT CIRCUIT AND OVERLOAD PROTECTION FOR THE PUMP.
3. PROVIDE BENTONITE PASTE AT ALL PIPE CONNECTIONS TO PUMP BASIN. INSTALL RAISED/EXPOSED (3" MAXIMUM) #4 REBAR AROUND PERIMETER OF PUMP BASE TO PROTECT SUMP PUMP FROM SETTLED DEBRIS.
4. PUMP MAINTENANCE REQUIREMENTS (MINIMUM): FOR PERMANENT USE, CLEAN STORM DRAIN BASIN AND PUMP OF DEBRIS EVERY SIX MONTHS.
5. ELECTRICAL SERVICE TO BE COORDINATED WITH THE ELECTRICAL CONTRACTOR.

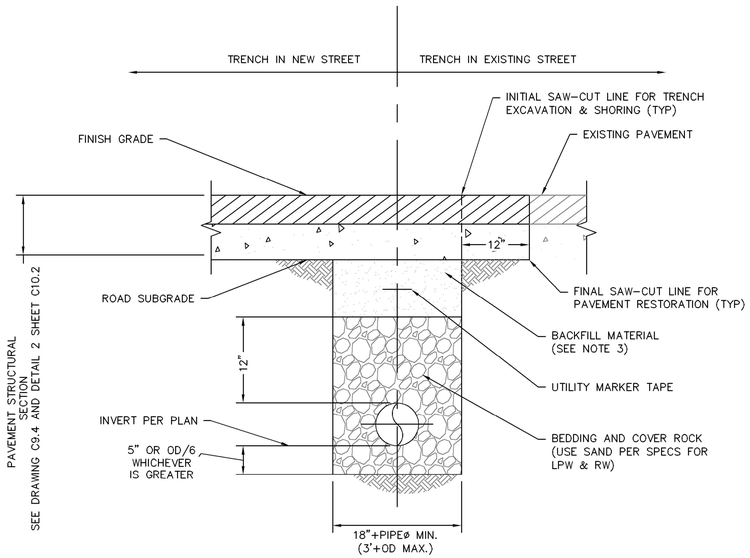
1 STORM DRAIN BUBBLE-UP
NTS


PAVEMENT SECTION PER SHEET C1.4 AND DETAIL 2, SHEET C10.2.
4" MIN. THICKENED EDGE
FLUSH
ON-SITE CONCRETE PAVEMENT SECTION BY OTHERS PER ARTISTS' REPLACEMENT DBI PERMIT (OR PER DETAIL 2, SHEET C10.2 IF NOT AT PROPERTY LINE)
24" (MIN)

NOTE:

1. APPROVED BONDING AGENT SHALL BE APPLIED AT CONSTRUCTION JOINT.

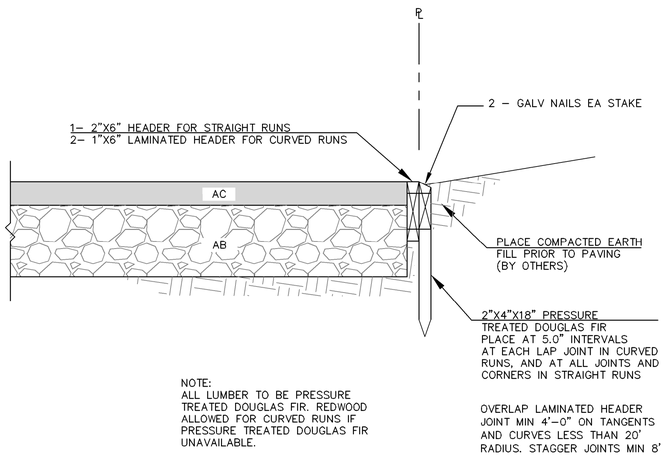
4 ASPHALT TO CONCRETE TRANSITION DETAIL
NTS


TRENCH IN NEW STREET
TRENCH IN EXISTING STREET
INITIAL SAW-CUT LINE FOR TRENCH EXCAVATION & SHORING (TYP)
EXISTING PAVEMENT
FINISH GRADE
12"
FINAL SAW-CUT LINE FOR PAVEMENT RESTORATION (TYP)
ROAD SUBGRADE
BACKFILL MATERIAL (SEE NOTE 3)
PAVEMENT STRUCTURAL SECTION SEE DRAWING C9.4 AND DETAIL 2 SHEET C10.2
12"
UTILITY MARKER TAPE
INVERT PER PLAN
BEDDING AND COVER ROCK (USE SAND PER SPECS FOR LPW & RW)
5" OR OD/6 WHICHEVER IS GREATER
18"+PIPEø MIN. (3'+OD MAX.)

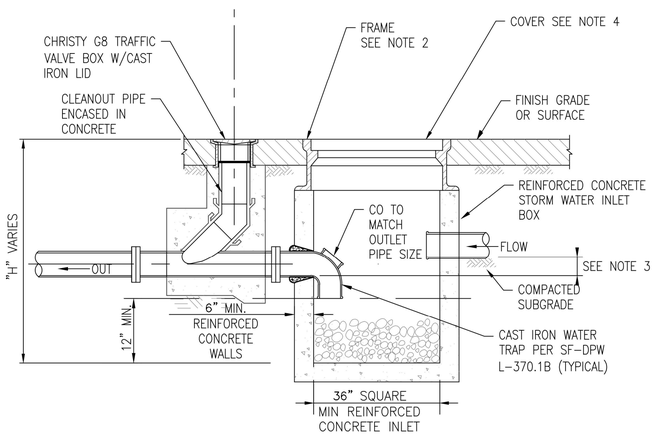
NOTES:

1. ALL WORK SHALL BE DONE PER SECTION 701 "PAVEMENT EXCAVATION", SECTION 702 "TRENCH EXCAVATION", AND SECTION 703 "TRENCH BACKFILL" OF SFDPW STANDARD SPECIFICATIONS AND ALL REFERENCES MADE WITHIN, AS WELL AS SECTION 2.4.55 OF THE CITY PUBLIC WORKS CODE..
2. WHERE CRUSHED ROCK IS USED AS BACKFILL, BEDDING, COVER, AND/OR STABILIZATION MATERIAL, IT SHALL BE ENTIRELY COVERED BY A FILTER FABRIC (MIRAFI 140 NC OR EQUIVALENT).
3. LIGHTWEIGHT FILL SHALL BE USED AS BACKFILL, BEDDING, OR COVER AS REQUIRED AND AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
4. REFER TO THE SUBDIVISION REGULATIONS FOR THE CANDLESTICK POINT/HUNTERS POINT SHIPYARD FOR ADDITIONAL DETAILED INFORMATION ON SPECIFIC UTILITIES.

2 TYPICAL TRENCH SECTION
NTS


PL
2 – GALV NAILS EA STAKE
1– 2"X6" HEADER FOR STRAIGHT RUNS
2– 1"X6" LAMINATED HEADER FOR CURVED RUNS
AC
AB
PLACE COMPACTED EARTH FILL PRIOR TO PAVING (BY OTHERS)
2"X4"X18" PRESSURE TREATED DOUGLAS FIR PLACE AT 5.0" INTERVALS AT EACH LAP JOINT IN CURVED RUNS, AND AT ALL JOINTS AND CORNERS IN STRAIGHT RUNS
NOTE: ALL LUMBER TO BE PRESSURE TREATED DOUGLAS FIR. REDWOOD ALLOWED FOR CURVED RUNS IF PRESSURE TREATED DOUGLAS FIR UNAVAILABLE.
OVERLAP LAMINATED HEADER JOINT MIN 4'-0" ON TANGENTS AND CURVES LESS THAN 20' RADIUS. STAGGER JOINTS MIN 8'

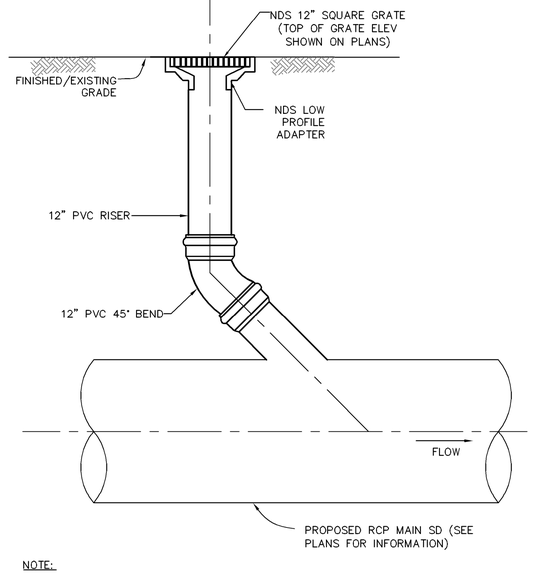
5 HEADER BOARD DETAIL
NTS


CHRISTY G8 TRAFFIC VALVE BOX W/CAST IRON LID
FRAME SEE NOTE 2
COVER SEE NOTE 4
CLEANOUT PIPE ENCASED IN CONCRETE
FINISH GRADE OR SURFACE
REINFORCED CONCRETE STORM WATER INLET BOX
CO TO MATCH OUTLET PIPE SIZE
FLOW
SEE NOTE 3
"H" VARIES
OUT
COMPACTED SUBGRADE
6" MIN. REINFORCED CONCRETE WALLS
12" MIN.
CAST IRON WATER TRAP PER SF-DPW L-370.1B (TYPICAL)
36" SQUARE MIN REINFORCED CONCRETE INLET

NOTES:

1. VENTS AND TRAP PRIMERS ARE REQUIRED ON ALL INTERIOR CATCH BASINS.
2. CONTRACTOR OPTION TO REPLACE METAL FRAME WITH CONCRETE. CONCRETE SHALL BE RECESSED TO ALLOW PAVERS TO BE INSTALLED UP TO EDGE OF GRATE AS SHOWN IN DETAIL ABOVE.
3. INLET INVERT SHALL BE 6" MINIMUM ABOVE OUTLET INVERT.
4. CONTRACTOR SHALL FURNISH & INSTALL THE FOLLOWING AS NOTED PER PLAN:
   - SAND TRAP: SOLID CAST IRON PLATE W/LIFTING HOLE OR EYE. COVER SHALL BE SLIP RESISTANT & TRAFFIC RATED W/LOCKING DEVICE.
   - CATCH BASIN: CAST-IRON GRATE OR GALVANIZED WELDED STEEL.

3 CATCH BASIN/SAND TRAP
NTS


NDS 12" SQUARE GRATE (TOP OF GRATE ELEV SHOWN ON PLANS)
FINISHED/EXISTING GRADE
NDS LOW PROFILE ADAPTER
12" PVC RISER
12" PVC 45° BEND
FLOW
PROPOSED RCP MAIN SD (SEE PLANS FOR INFORMATION)

NOTE:

1. PVC SD LATERAL SHALL BE CUT TO MATCH INSIDE FACE OF RCP SD MAIN AND INSTALLED FLUSH. OPENING FOR RCP SD MAIN SHALL BE CORED HOLE, WITH DIM LARGER THAN PVC SD LATERAL 1". CONNECTION TO BE HEAVILY GROUTED PRIOR TO PLACEMENT IN THE TRENCH.
2. ALL PVC PIPE TO BE SDR 26.

6 AREA DRAIN CONNECTION TO MAIN RCP SD
NTS

BKF ENGINEERS | SURVEYORS | PLANNERS
255 SHORELINE DRIVE, STE 200
REDWOOD CITY, CA 94065
650/482-6300
650/482-6399 (FAX)

LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER CHARLES J. PLIMPAL No. 53325 CIVIL STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
DETAILS

CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale N/A
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C10.1

DRAWING NAME: J:\Engl\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C10.0-C10.3 UTILITY SECTIONS & DETAILS.dwg
PLOT DATE: 08-12-15 PLOTTED BY: sarw

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811
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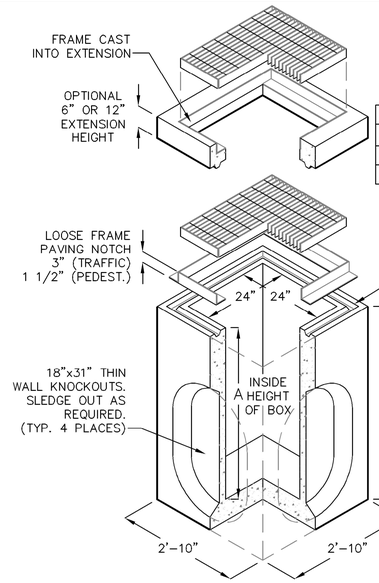

FRAME CAST INTO EXTENSION
OPTIONAL 6" OR 12" EXTENSION HEIGHT
LOOSE FRAME PAVING NOTCH 3" (TRAFFIC) 1 1/2" (PEDEST.)
24"
24"
FRAME MAY BE CAST DIRECTLY INTO BOX (OPTIONAL)
18"x31" THIN WALL KNOCKOUTS. SLEDGE OUT AS REQUIRED. (TYP. 4 PLACES)
INSIDE A HEIGHT OF BOX
B OUTSIDE HEIGHT OF BOX
2'-10"
2'-10"
OPTIONAL C EXTENSION HEIGHT

DROP INLET			
MODEL NO.	A	B	*WEIGHT
DI242436	36"	42"	1900 LBS.
DI242448	48"	54"	2500 LBS.

*BOX ONLY

EXTENSION		
MODEL NO.	C	WEIGHT
RS242406	6"	300 LBS.
RS242412	12"	600 LBS.

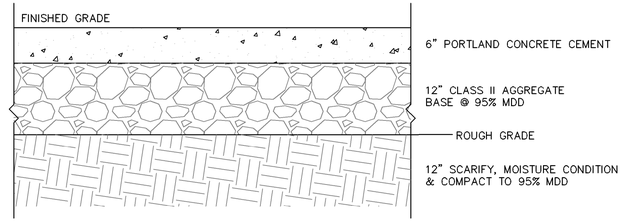
FRAME AND GRATE ASSEMBLY AVAILABLE IN TRAFFIC OR PEDESTRIAN MODELS

BOX DESIGN LOAD: H-20 TRAFFIC

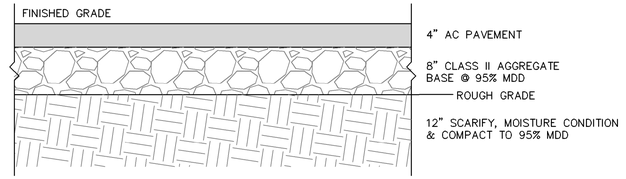
FOR COMPLETE DESIGN AND PRODUCT INFORMATION, CONTACT JENSEN PRECAST.

JENSEN 24" X 24" X VARIABLE HEIGHT CATCH BASIN

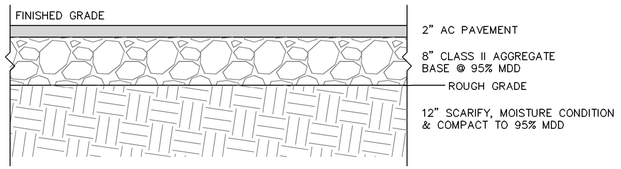
1 NTS


FINISHED GRADE
6" PORTLAND CONCRETE CEMENT
12" CLASS II AGGREGATE BASE @ 95% MDD
ROUGH GRADE
12" SCARIFY, MOISTURE CONDITION & COMPACT TO 95% MDD

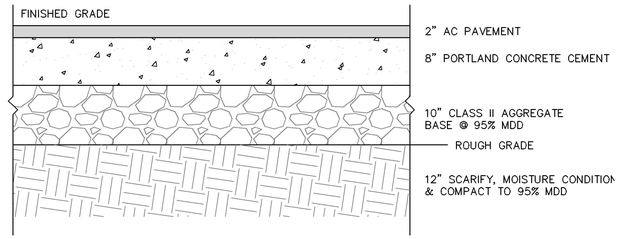
TYPICAL CONCRETE SECTION


FINISHED GRADE
4" AC PAVEMENT
8" CLASS II AGGREGATE BASE @ 95% MDD
ROUGH GRADE
12" SCARIFY, MOISTURE CONDITION & COMPACT TO 95% MDD

HORNE & ROBINSON SECTION


FINISHED GRADE
2" AC PAVEMENT
8" CLASS II AGGREGATE BASE @ 95% MDD
ROUGH GRADE
12" SCARIFY, MOISTURE CONDITION & COMPACT TO 95% MDD

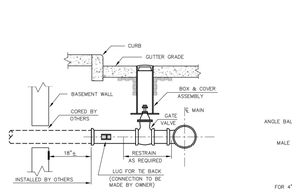
TYPICAL AC SIDEWALK SECTION


FINISHED GRADE
2" AC PAVEMENT
8" PORTLAND CONCRETE CEMENT
10" CLASS II AGGREGATE BASE @ 95% MDD
ROUGH GRADE
12" SCARIFY, MOISTURE CONDITION & COMPACT TO 95% MDD

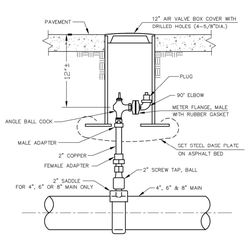
GALVEZ & ROBINSON STREET (HILL TIE IN) SECTION

PAVEMENT SECTIONS

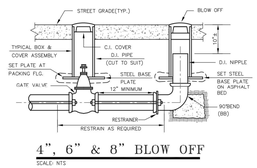
2 NTS



BASEMENT AREA FIRE SERVICE
SCALE: NTS



2" AIR VALVE & BLOW OFF
SCALE: NTS



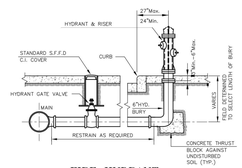
4", 6" & 8" BLOW OFF
SCALE: NTS

G.V.	BOX
S.C.	6"
4"	6"
6"	6"
8"	8"
12"	8"
16"	8"

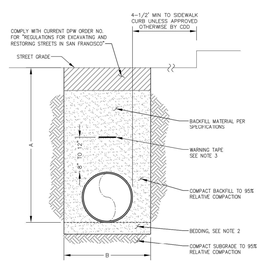
B.O.	BOX
2"	12"
4"	6"-6"
6"	6"-8"
8"	8"-12"

NOTE: SEE BLOW OFF DETAILS FOR TYPICAL BOX & COVER ASSEMBLY DETAIL.

BOX & COVER SIZES
SCALE: NTS



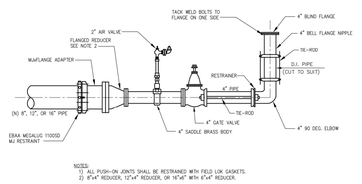
FIRE HYDRANT
SCALE: NTS


COMPLY WITH CURRENT DPW ORDER NO. FOR "REGULATIONS FOR EXCAVATING AND RESTORING STREETS IN SAN FRANCISCO"
4-1/2" MIN TO SIDEWALK CURB UNLESS APPROVED OTHERWISE BY CCO.
STREET GRADE
BACKFILL MATERIAL PER SPECIFICATIONS
WARNING TAPE SEE NOTE 3
COMPACT BACKFILL TO 95% RELATIVE COMPACTION
BEDDING, SEE NOTE 2
COMPACT SUBGRADE TO 95% RELATIVE COMPACTION

NOMINAL PIPE DIAMETER	MINIMUM TRENCH DEPTH A	MINIMUM TRENCH WIDTH B
1", 2"	24"	12"
4", 6", 8"	36"	18"
12"	46"	24"
16"	54"	30"
20"	54"	38"
24"	55"	44"

NOTES:
1) MINIMUM TRENCH DEPTHS AND TRENCH WIDTHS MUST BE ADHERED TO UNLESS APPROVED OTHERWISE BY THE CITY DISTRIBUTION DIVISION.
2) OVEREXCAVATING FOR BEDDING IS NOT REQUIRED UNLESS:
A) BOTTOM OF TRENCH EXCAVATION IS IN BEDROCK, WHERE BEDDING SHALL BE 6" THICK.
B) FOR 20" AND 24" DIA. PIPE, WHERE BEDDING SHALL BE 4" THICK.
C) REQUIRED BY THE CITY REPRESENTATIVE.
BEDDING SHALL BE THE SAME AS BACKFILL MATERIAL PER SPECIFICATIONS AND SHALL BE COMPACTED TO 90% RELATIVE COMPACTION.
3) WARNING TAPE SHALL BE 6" WIDE, BLUE COLORED, NON-DETECTABLE TYPE, INSCRIPTION MESSAGE, USING 1.5" MINIMUM HEIGHT BLACK TEXT, SPACED AT 3-FT MAXIMUM INTERVALS, SHALL READ "CAUTION: WATER LINE BELOW". WARNING TAPE SHALL OVERLAP 12" MINIMUM AT SPLICES.
4) TRENCH CONSTRUCTION SHALL CONFORM TO OSHA AND CAL OSHA.

LOW PRESSURE WATER & RECYCLED WATER PIPE TRENCH
SCALE: NTS



NOTES:
1) ALL PUSH-ON JOINTS SHALL BE RESTRAINED WITH FIELD LOK GASKETS.
2) 8"x4" REDUCER, 12"x4" REDUCER, OR 16"x4" WITH 8"x4" REDUCER.

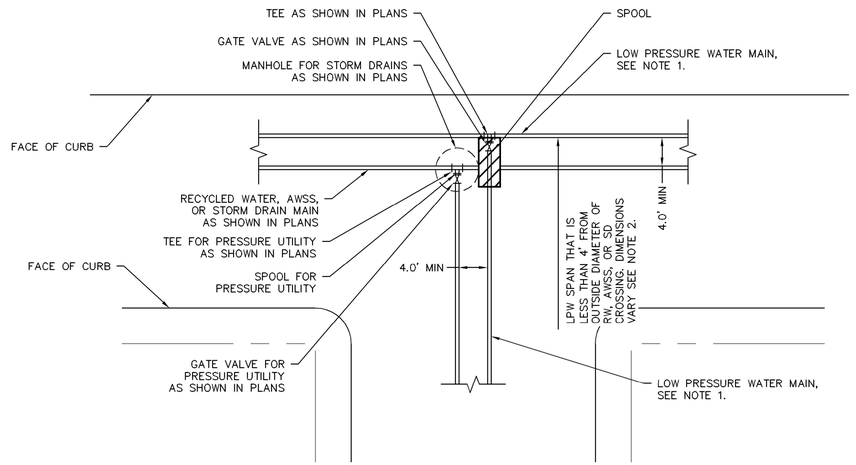
4" FLUSHING ASSEMBLY
SCALE: NTS

SFPUC DUCTILE IRON PIPE MAIN INSTALLATIONS, STD E-4969

3 NTS

GENERAL NOTES:

1. ALL MATERIALS SHOWN ON THE PLANS SHALL BE ASSEMBLED & INSTALLED BY THE CONTRACTOR EXCEPT WHERE NOTED OTHERWISE.
2. ALL FITTINGS 2" OR LESS SHALL BE BRASS UNLESS OTHERWISE SHOWN ON THE PLANS.
3. PLUGS FOR AIR VALVES & BLOW OFF ASSEMBLIES SHALL BE LUBRICATED WITH "NO OXIDE" GREASE & INSTALLED HAND TIGHT.
4. METER BOXES SHALL NOT BE LOCATED IN DRIVEWAYS OR IN SIDEWALK FLAGS THAT CONTAIN OTHER UTILITIES.
5. ALL METER TO BE INSTALLED BY WATER DEPARTMENT EXCEPT WHERE NOTED.
6. TIE NEW ANGLE COCK JUST TO THE RIGHT OF & APPROXIMATELY 1" BELOW EXISTING ANGLE COCK.


TEE AS SHOWN IN PLANS
SPOOL
GATE VALVE AS SHOWN IN PLANS
LOW PRESSURE WATER MAIN, SEE NOTE 1.
MANHOLE FOR STORM DRAINS AS SHOWN IN PLANS
FACE OF CURB
RECYCLED WATER, AWSS, OR STORM DRAIN MAIN AS SHOWN IN PLANS
TEE FOR PRESSURE UTILITY AS SHOWN IN PLANS
SPOOL FOR PRESSURE UTILITY
FACE OF CURB
4.0' MIN
4.0' MIN
LPW SPAN THAT IS LESS THAN 4' FROM OUTSIDE DIAMETER OF RW, AWSS, OR SD CROSSING. DIMENSIONS VARY SEE NOTE 2.
GATE VALVE FOR PRESSURE UTILITY AS SHOWN IN PLANS
LOW PRESSURE WATER MAIN, SEE NOTE 1.

NOTES:

1. LOW PRESSURE WATER MAIN SHALL BE DUCTILE IRON WITH TYTON JOINT AND FIELD-LOK GASKET FOR 12" AND SMALLER AND TR FLEX JOINT FOR MAINS LARGER THAN 12" PER SPECIFICATIONS.
2. LOW PRESSURE WATER JOINTS LESS THAN 4' FROM THE OUTSIDE DIAMETER OF THE RECYCLED WATER, AWSS, OR STORM DRAIN PIPE AT A CROSSING SHALL BE ENCASED. ENCASEMENT SHALL CONSIST OF WAX TAPE PRIMER, WAX TAPE, AND POLYPLY.

LEGEND:

ANY LPW JOINTS WITHIN THIS AREA MUST BE PROTECTED. SEE NOTE 2.

LPW PIPE SEPARATION MITIGATION

4 NTS

BKF ENGINEERS | SURVEYORS | PLANNERS
255 SHORELINE DRIVE, STE 200
REDWOOD CITY, CA 94065
650/482-6300
650/482-6399 (FAX)

LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER CHARLES J. PLIMLEY No. 53325 CIVIL STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
DETAILS

CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale N/A
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C10.2

DRAWING NAME: J:\Engl1\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C10.0-C10.3 UTILITY SECTIONS & DETAILS.dwg
PLOT DATE: 08-12-15 PLOTTED BY: chuk

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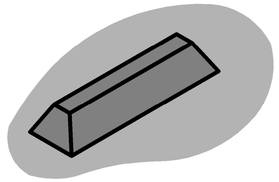
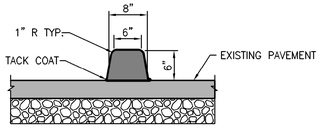
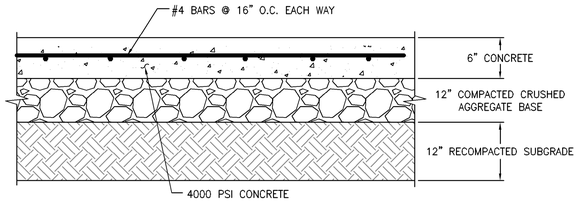
Know what's below. Call 811 before you dig.



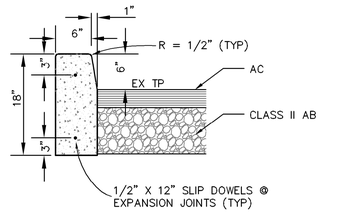


6 ASPHALTIC CONCRETE DIKE
NTS



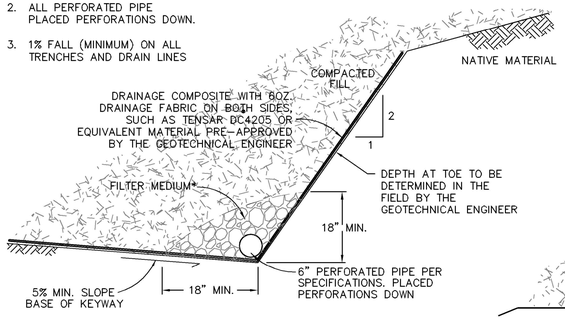
DETAIL A
PEDESTRIAN/LIGHT-TRAFFIC

3 CONCRETE PAD SECTION
NTS

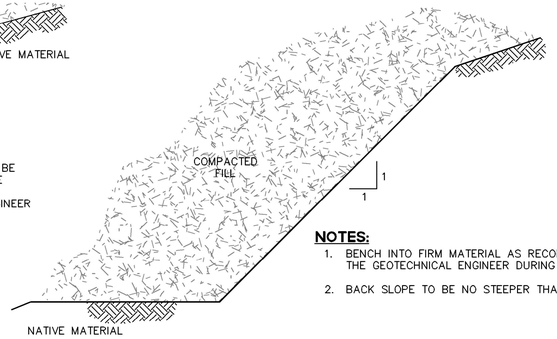


2 VERTICAL CURB
NTS

NOTES:
1. ALL PIPE JOINTS SHALL BE GLUED.
2. ALL PERFORATED PIPE PLACED PERFORATIONS DOWN.
3. 1% FALL (MINIMUM) ON ALL TRENCHES AND DRAIN LINES


NATIVE MATERIAL
COMPACTED FILL
DRAINAGE COMPOSITE WITH 8OZ. DRAINAGE FABRIC ON BOTH SIDES, SUCH AS TENSAR DC4205 OR EQUIVALENT MATERIAL PRE-APPROVED BY THE GEOTECHNICAL ENGINEER
2
1
DEPTH AT TOE TO BE DETERMINED IN THE FIELD BY THE GEOTECHNICAL ENGINEER
FILTER MEDIUM*
18" MIN.
6" PERFORATED PIPE PER SPECIFICATIONS. PLACED PERFORATIONS DOWN
5% MIN. SLOPE BASE OF KEYWAY
18" MIN.

KEYWAY - BASE SUBDRAIN



NOTES:
1. BENCH INTO FIRM MATERIAL AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER DURING GRADING.
2. BACK SLOPE TO BE NO STEEPER THAN 1:1.

KEYWAY - TYPICAL BENCH

***FILTER MEDIUM**

ALTERNATIVE A

CLASS 2 PERMEABLE MATERIAL

MATERIAL SHALL CONSIST OF CLEAN, COARSE SAND AND GRAVEL OR CRUSHED STONE, CONFORMING TO THE FOLLOWING GRADING REQUIREMENTS:

SIEVE SIZE	% PASSING SIEVE
1"	100
3/4"	90-100
3/8"	40-100
#4	25-40
#8	18-33
#30	5-15
#50	0-7
#200	0-3

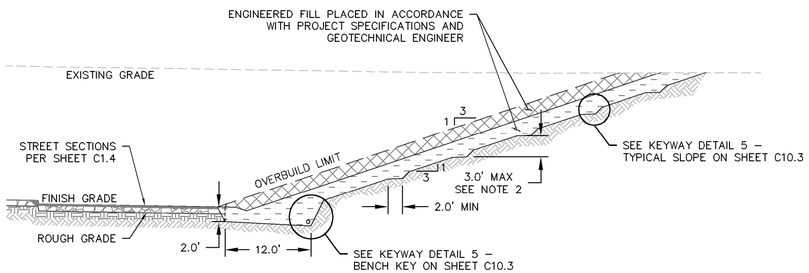
ALTERNATIVE B

CLEAN CRUSHED ROCK OR GRAVEL WRAPPED IN FILTER FABRIC

ALL FILTER FABRIC SHALL MEET THE FOLLOWING MINIMUM AVERAGE ROLL VALUES UNLESS OTHERWISE SPECIFIED BY ENGEO:

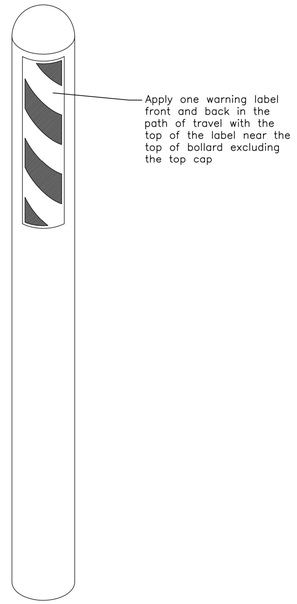
GRAB STRENGTH (ASTM D-4632) _____ 180 lbs
MASS PER UNIT AREA (ASTM D-4751) _____ 6 oz/yd²
APPARENT OPENING SIZE (ASTM D-4751) _____ 70-100 U.S. STD. SIEVE
FLOW RATE (ASTM D-4491) _____ 80 gal/min/ft
PUNCTURE STRENGTH (ASTM D-4833) _____ 80 lbs

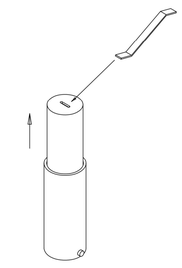
5 TYPICAL KEYWAY DETAILS
NTS



NOTES:
1. OVERBUILD SLOPE CAP TO HAVE A MINIMUM 12' WIDE BENCH.
2. MINIMUM 2' CUTBACK EVERY 3 LIFTS. MAXIMUM LIFT THICKNESS IS 1'.
3. ONCE FILL AND COMPACTION IS COMPLETED, TRIM OVERBUILD SLOPE BACK TO FINISH GRADE.
4. SEE C3 AND C7 SERIES FOR ROUGH AND FINAL GRADING INFORMATION.

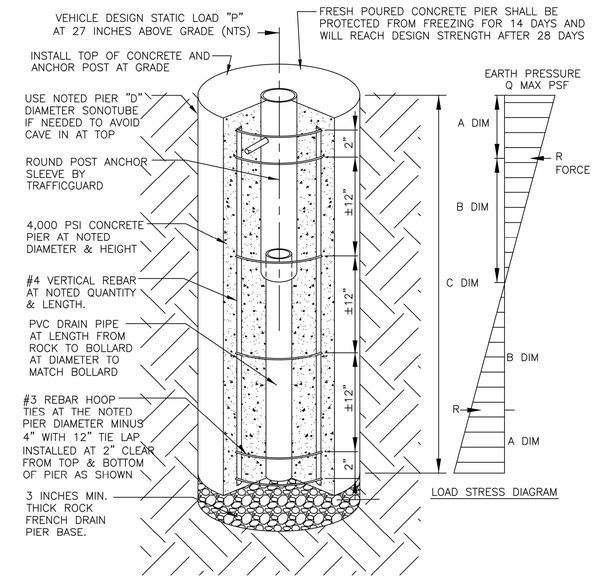
4 TYPICAL KEYWAY SECTION
NTS


Apply one warning label front and back in the path of travel with the top of the label near the top of bollard excluding the top cap



After following directions for securing outer tube in foundation, use removal key to completely remove cover.

Insert bollard into the outer tube until bottom touches base.


VEHICLE DESIGN STATIC LOAD "P" AT 27 INCHES ABOVE GRADE (NTS)
FRESH POURED CONCRETE PIER SHALL BE PROTECTED FROM FREEZING FOR 14 DAYS AND WILL REACH DESIGN STRENGTH AFTER 28 DAYS
INSTALL TOP OF CONCRETE AND ANCHOR POST AT GRADE
EARTH PRESSURE Q MAX PSF
USE NOTED PIER "D" DIAMETER SONOTUBE IF NEEDED TO AVOID CAVE IN AT TOP
A DIM
R FORCE
ROUND POST ANCHOR SLEEVE BY TRAFFICGUARD
B DIM
4,000 PSI CONCRETE PIER AT NOTED DIAMETER & HEIGHT
C DIM
#4 VERTICAL REBAR AT NOTED QUANTITY & LENGTH.
B DIM
PVC DRAIN PIPE AT LENGTH FROM ROCK TO BOLLARD AT DIAMETER TO MATCH BOLLARD
R
A DIM
#3 REBAR HOOP TIES AT THE NOTED PIER DIAMETER MINUS 4" WITH 12" TIE LAP INSTALLED AT 2" CLEAR FROM TOP & BOTTOM OF PIER AS SHOWN
3 INCHES MIN. THICK ROCK FRENCH DRAIN PIER BASE.
LOAD STRESS DIAGRAM

NOTE: REFER TO TABLE AND NOTES FOR THE ANCHORAGE SYSTEM DIMENSIONS, DESIGN LOADS, REBAR SIZE, QUANTITIES, AND OTHER DESIGN DATA.

DESIGN AND CONSTRUCTION DATA SCHEDULE RPAS

1. THE DESIGN LOAD IS A STATIC LOAD "P" LOCATED AT 27 INCHES ABOVE GRADE THAT SHOULD CAUSE FAILURE OF THE BOLLARD.
2. THE EARTH PRESSURE VALUE IS SHOWN AT DESIGN LOAD AND THE OWNER SHOULD VERIFY THAT THE EARTH IS ADEQUATE TO WITHSTAND THE NOTED EARTH DESIGN PRESSURE.
3. ANCHORAGE SYSTEMS BY OTHERS THAN TRAFFICGUARD MAY CAUSE PREMATURE FAILURE OF THE BOLLARD BY ROTATION OF ANCHORAGE AT DESIGN LOAD.

DESIGN FORMULA: EARTH PRESSURE MAXIMUM $Qmax = 3888\ P\ /\ DB(A+B)$

NOTE: CONCRETE, FORM, ROCK, PVC DRAIN AND REBAR PROVIDED BY OTHERS													
DESIGN	BOLLARD			EARTH	PIER HT.	VERT. REBAR		HOOP	PIER	FRENCH	PIER	LOAD DIM	
LOAD P	Out Dia.	Ins Dia.	Fb PSI	"Q" MAX.	"C" MIN.	LENGTH	QTY	TIES	CONCRETE	DRAIN	"D"	"A"	"B"
600 #	1.910"	1.620"	49090	992 PSF	42 INCH	38 INCH	3	6 EA.	6 Cu Ft	1.2 CF	8"	7"	14"
1200 #	2.440"	2.064"	46552	1984 PSF	42 INCH	38 INCH	3	6 EA.	6 Cu Ft	1.2 CF	8"	7"	14"
3000 #	3.500"	3.068"	47093	2204 PSF	42 INCH	38 INCH	4	6 EA.	6 Cu Ft	0.5 CF	18"	7"	14"
6000 #	4.500"	4.026"	50467	4408 PSF	42 INCH	38 INCH	4	6 EA.	6 Cu Ft	0.5 CF	18"	7"	14"
6000 #	4.500"	4.026"	50467	2667 PSF	54 INCH	50 INCH	4	7 EA.	8 Cu Ft	0.5 CF	18"	9"	18"
10000#	5.563"	5.047"	49541	4444 PSF	54 INCH	50 INCH	4	7 EA.	8 Cu Ft	0.5 CF	18"	9"	18"
10000#	5.563"	5.047"	49541	3600 PSF	60 INCH	56 INCH	4	8 EA.	9 Cu Ft	0.5 CF	18"	10"	20"
10000#	5.563"	5.047"	49541	2975 PSF	66 INCH	62 INCH	4	8 EA.	10 Cu Ft	0.5 CF	18"	11"	22"
15000#	6.625"	6.065"	47647	3750 PSF	72 INCH	68 INCH	4	9 EA.	11 Cu Ft	0.5 CF	18"	12"	24"
15000#	6.625"	6.065"	47647	3195 PSF	78 INCH	72 INCH	4	9 EA.	12 Cu Ft	0.5 CF	18"	13"	26"
15000#	6.625"	6.065"	47647	3240 PSF	60 INCH	56 INCH	8	8 EA.	25 Cu Ft	1.6 CF	30"	10"	20"
15000#	6.625"	6.065"	47647	3333 PSF	54 INCH	50 INCH	8	7 EA.	32 Cu Ft	1.8 CF	36"	9"	18"

1 REMOVABLE BOLLARDS
NTS

BKF ENGINEERS | SURVEYORS | PLANNERS
255 SHORELINE DRIVE, STE 200
REDWOOD CITY, CA 94065
650/482-6300
650/482-6399 (FAX)

LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER CHARLES J. PLIMAL No. 53325 CIVIL STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
DETAILS

CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 06/12/2015
Scale N/A
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
C10.3

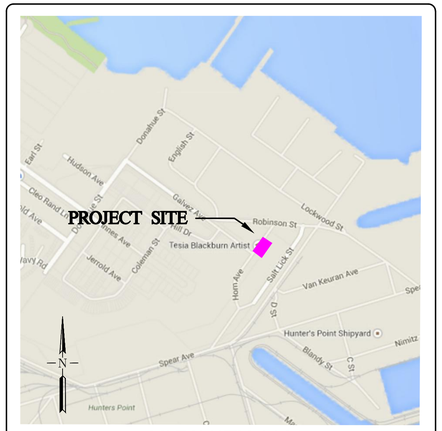
DRAWING NAME: J:\Eng11\110162\DWG\HP Major Phase 1\Building 101 Artists Sub-Phase\02 ARTISTS' BUILDING\MASS GRADING & DEMO PLOTTED SHEETS\C10.0-C10.3 UTILITY SECTIONS & DETAILS.dwg
PLOT DATE: 10-02-15 PLOTTED BY: chuk

811 Know what's below. Call 811 before you dig.

DRY UTILITY JOINT TRENCH INTENT PLAN
THE SHIPYARD - HUNTERS POINT PHASE II
ARTISTS REPLACEMENT SPACE

102 HORNE AVENUE

CITY AND COUNTY OF SAN FRANCISCO - CALIFORNIA

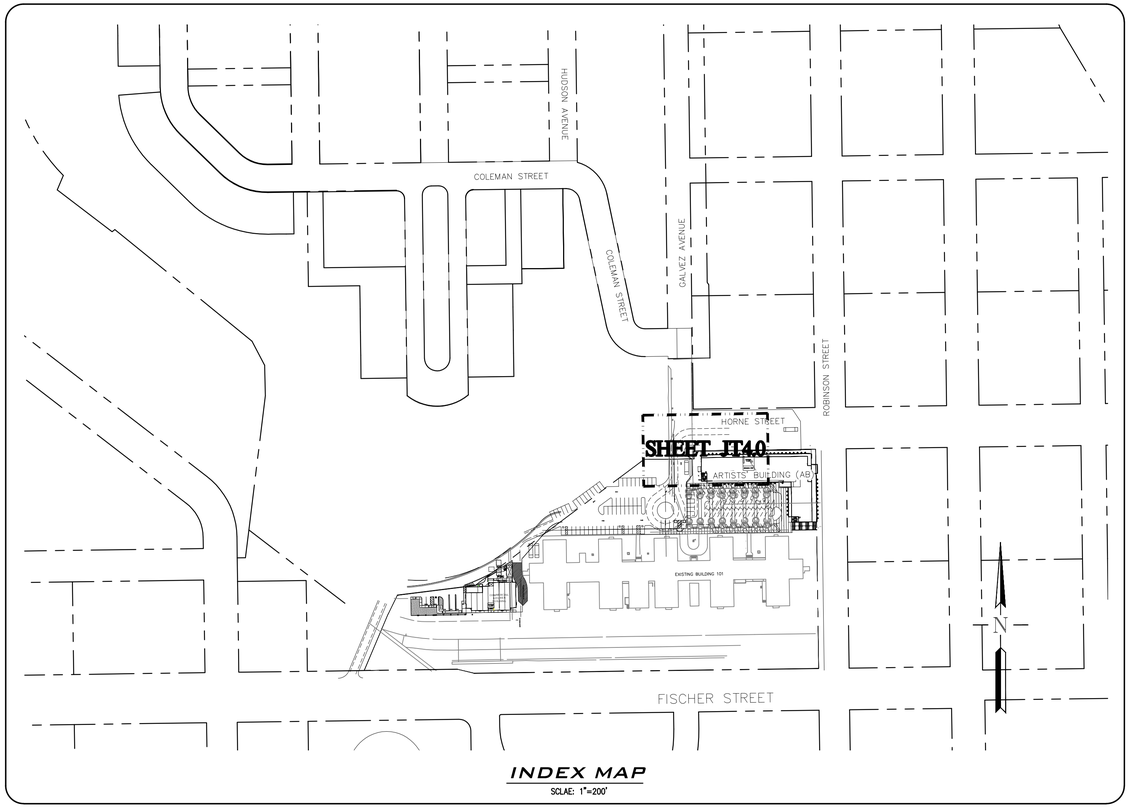


VICINITY MAP

NOT TO SCALE

LEGEND

O.H. ELECT	EXISTING O.H. ELECTRIC
EX U.G.	EXISTING TRENCH OR UTILITIES (AS SHOWN)
	EXISTING UTILITY POLE
	PROPOSED DRY UTILITY SERVICE TRENCH
8	4'6"x8'6"x7'6" LID SUBSURFACE BOX
6	4'6"x6'6"x6'0" LID SUBSURFACE BOX
5	3'x5'x3'6" LID SPLICE BOX
X	24"x36" LID SECONDARY SPLICE BOX (U.O.N.)
T5	3'0"x5'0"x4'0" AT&T BOX PTS-3660 (U.O.N.)
T3	24"x36" TELEPHONE SPLICE BOX (U.O.N.)
C9	20.25"x42.25" COMM SPLICE BOX (CHRISTY B44)
D3	24"x36" D.T.I.S. SAN FRANCISCO COMM. (CHRISTY N40)
(X)	SFPUC ELECTRIC SKETCH LOCATION NUMBER
(U.O.N.)	UNLESS OTHERWISE NOTED
D.T.I.S.	DEPARTMENT OF TELECOMMUNICATIONS & INFORMATION SERVICES
FVT	FULL VEHICULAR TRAFFIC



INDEX MAP

SCALE: 1"=200'

SHEET INDEX

SHEET NO.	DESCRIPTION
JT1.0	JOINT TRENCH INTENT TITLE SHEET
JT2.0	JOINT TRENCH GENERAL NOTES & DETAILS
JT3.0	JOINT TRENCH SECTIONS & DETAILS
JT4.0	JOINT TRENCH INTENT PLAN

REVIEWED AND ACCEPTED:

ORGANIZATION:_____

SIGNED:_____PRINT NAME: _____DATE:_____

CITY OF SAN FRANCISCO

APPROVED BY:

DATE:_____

_____ RCE NO:_____

_____, P.E. EXP DATE:_____

DEPARTMENT OF PUBLIC WORKS
MASS GRADING, DEMOLITION, &
UTILITY PHASE II PERMIT PLANS

PG&E PM NO.	
ELECTRIC	
RULE 15:	
RULE 16:	
RULE 20:	
RELOC:	
WRO:	
GAS	
RULE 15:	
RELOC:	

PROJECT TEAM CONTACTS		
COMPANY	CONTACT	PHONE
BKF ENGINEERS	CHUCK HUMPAL	(650) 482-6320
TELAMON ENGINEERING CONSULTANTS	MENNOR CHAN	(415) 837-1336
PSD - SFPUC ELECTRIC SUBSTRUCTURES	JERRY JONES	(925) 933-8485
PSD - DRY UTILITY COMPOSITE	ADAM VAWTER	(925) 933-8485
LENNAR URBAN	MICHAEL HOCHSTOEGER	(415) 344-8860

POWER SYSTEMS DESIGN
PSD
2033 N. MAIN STREET, SUITE 200
WALNUT CREEK, CA 94596
TEL: 925-933-8485
WWW.POWERSYSTEMSDESIGN.NET
PLANNING • TRANSMISSION • DISTRIBUTION • SUBSTATION • DRY UTILITY DESIGN

LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER
DALE D. REWKOWSKI
Exp. 6/30/16
C33388
CIVIL
STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE

JOINT TRENCH INTENT PLAN
MASS GRADING, DEMO, & UTILITY PLANS

HUNTERS POINT PHASE II

CITY AND COUNTY OF SAN FRANCISCO

CALIFORNIA

No.	Date	Revisions	City Approval

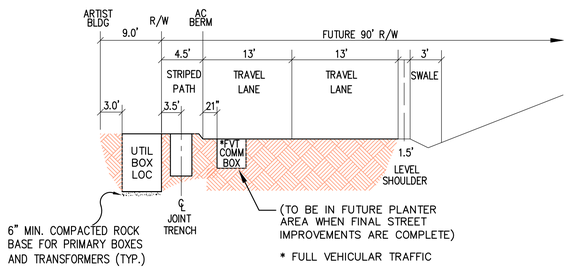
Date 08/12/2015
Scale AS SHOWN
Design AV
Drawn AV
Approved AV
Job No PSD13-038

Drawing Number:

JT1.0

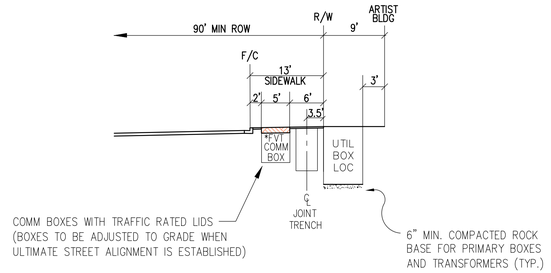
OF 4

811
Know what's below.
Call 811 before you dig.



HORNE STREET TRENCH SECTION

NOT TO SCALE



FUTURE HORNE STREET ARRANGEMENT

NOT TO SCALE

JOINT TRENCH AND UTILITY BOX LOCATION

NOT TO SCALE
NOTE: SEE PLANS FOR CONFIGURATIONS AND ARRANGEMENTS.

LABOR & CONSTRUCTION RESPONSIBILITY

JOINT TRENCH

	SFPUC ELECTRIC	PG&E GAS	TELEPHONE	C.A.T.V.	S.F. D.T.I.S.	COMM CONTRACTOR
TRENCHING:						
EXCAVATE, BACKFILL AND COMPACT	□	□	□	□	□	■
GAS MATERIAL:						
SUPPLY	□	□	□	□	□	■
INSTALL	□	□	□	□	□	■
ELECTRIC CABLE:						
SUPPLY	□	□	□	□	□	■
INSTALL	□	□	□	□	□	■
ELECTRIC CONDUIT:						
SUPPLY	□	□	□	□	□	■
INSTALL	□	□	□	□	□	■
ELECTRIC SPLICE BOXES:						
EXCAVATE	□	□	□	□	□	■
SUPPLY	□	□	□	□	□	■
INSTALL	□	□	□	□	□	■
ELECTRIC TFMR. ENCLS.:						
EXCAVATE	□	□	□	□	□	■
SUPPLY	□	□	□	□	□	■
INSTALL	□	□	□	□	□	■
ELECTRIC EQUIP. ENCLS.:						
EXCAVATE	□	□	□	□	□	■
SUPPLY	□	□	□	□	□	■
INSTALL	□	□	□	□	□	■
ELECTRIC TFMR. PADS:						
GRADE	□	□	□	□	□	■
SUPPLY	□	□	□	□	□	■
INSTALL	□	□	□	□	□	■
ELECTRIC SWITCH PADS:						
GRADE	□	□	□	□	□	■
SUPPLY	□	□	□	□	□	■
INSTALL	□	□	□	□	□	■
TELEPHONE CONDUIT:						
SUPPLY	□	□	□	□	□	■
INSTALL	□	□	□	□	□	■
TELEPHONE CABLE:						
SUPPLY	□	□	■	□	□	□
INSTALL	□	□	■	□	□	□
TELEPHONE SPLICE BOX:						
EXCAVATE	□	□	□	□	□	■
SUPPLY	□	□	□	□	□	■
INSTALL	□	□	□	□	□	■
TELEPHONE P.F.P. PADS:						
GRADE	□	□	■	□	□	□
SUPPLY	□	□	■	□	□	□
INSTALL	□	□	■	□	□	□
CATV CONDUITS:						
SUPPLY	□	□	□	□	□	■
INSTALL	□	□	□	□	□	■
CATV SPLICE BOXES:						
EXCAVATE	□	□	□	□	□	■
SUPPLY	□	□	□	□	□	■
INSTALL	□	□	□	□	□	■
S.F. D.T.I.S. ALUM. POLES:						
EXCAVATE	□	□	□	□	□	■
SUPPLY	□	□	□	□	■	□
INSTALL	□	□	□	□	■	□
S.F. D.T.I.S. CONDUITS:						
SUPPLY	□	□	□	□	□	■
INSTALL	□	□	□	□	□	■
S.F. D.T.I.S. SPLICE BOXES:						
EXCAVATE	□	□	□	□	□	■
SUPPLY	□	□	□	□	□	■
INSTALL	□	□	□	□	□	■

THE ■ ABOVE DESIGNATES THE WORK TO BE PERFORMED BY THE CONTRACTOR AND EACH UTILITY COMPANY.

STREET LIGHTING SYSTEM

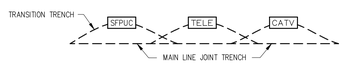
RATE SCHEDULE: NA
INSTALL IN JOINT TRENCH:
INSTALL IN SEPARATE TRENCH:

	SFPUC	CONTRACTOR
WIRE:		
SUPPLY	□	■
INSTALL	□	■
CONDUIT:		
SUPPLY	□	■
INSTALL	□	■
BASES:	□	■
LUMINAIRES:	□	■
SPLICE BOX:	□	■
ST. LT. POLES:	□	■

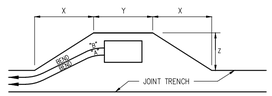
PARTICIPATING UTILITIES:
ELECTRIC COMPANY: SFPUC
GAS COMPANY: PG&E
TELEPHONE COMPANY: AT&T
CATV COMPANY: CONVERGENS

ADDITIONAL NOTES:

JOINT TRENCH TRANSITION



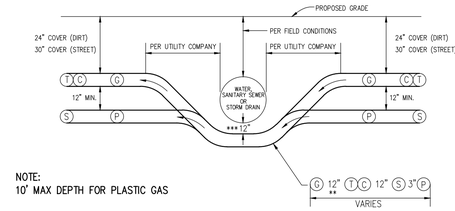
1. CONTRACTOR TO EXCAVATE TRANSITIONS FROM MAIN-LINE TRENCH TO VAULTS AS REQUIRED BY EACH UTILITY.
2. TRANSITIONS NOT SHOWN ON COMPOSITE DRAWING FOR CLARITY.
3. CONTRACTOR TO INCLUDE COST OF TRANSITIONS IN VAULT EXCAVATION COST.



PRIMARY BOX SIZE	DISTANCE "X"	WHEN CONDUIT ENTERS BOX @ "A" "Y"	"Z"
3'x5'	24'	7'	5'
4'6"x8'6"	24'	11'	7'
PRIMARY BOX SIZE	DISTANCE "X"	WHEN CONDUIT ENTERS BOX @ "B" "Y"	"Z"
3'x5'	32'	7'	5'
4'6"x8'6"	32'	11'	7'

TYPICAL PRIMARY BOX EXCAVATION USING A CONDUIT SYSTEM

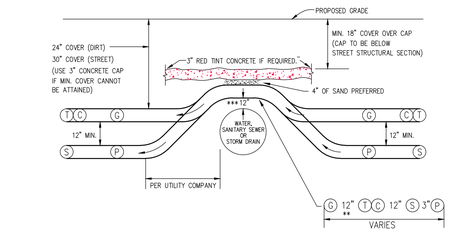
NOT TO SCALE



NOTE:
10' MAX DEPTH FOR PLASTIC GAS

JOINT TRENCH UNDER WATER, SANITARY SEWER OR STORM DRAIN
ALTERNATE METHOD #1

* SEE MINIMUM COVER & CLEARANCE CHART



JOINT TRENCH OVER WATER, SANITARY SEWER OR STORM DRAIN
ALTERNATE METHOD #2

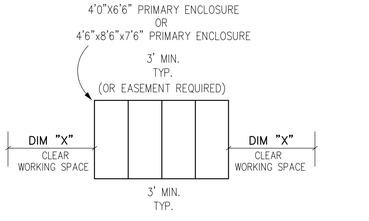
* SEE MINIMUM COVER & CLEARANCE CHART

** WITH MUTUAL AGREEMENT, WHEN 4" O.D. OR SMALLER GAS PIPE IS INSTALLED SEPARATION MAY BE REDUCED TO NOT LESS THAN 6" BETWEEN GAS AND COMMINCATION DUCTS (TELEPHONE & CATV).

*** 6" MINIMUM REQUIRED BY PG&E- ADDITIONAL CLEARANCE MAYBE REQUIRED BY CITY OR COUNTY. BED THE BOTTOM OF THE TRENCH WITH IMPORTED SAND, INSTALL THE CONDUIT AND/OR GAS PIPE, COVER THE FACILITY WITH THE SAME IMPORTED SAND AND MECHANICALLY COMPACT USING A VIBRATORY TYPE COMPACTOR.

DETAIL 1 JT2 N.T.S.

NOTE: CROSSING METHODS ARE NOT LIMITED TO THE ABOVE DETAILS. OTHER APPROVED CONFIGURATIONS MAY BE USED. CONTRACTOR TO VERIFY METHOD OF CROSSING WITH GOVERNING AGENCY AND/OR UTILITY COMPANIES AS REQUIRED PRIOR TO CONSTRUCTION.



DIM "X"

3' MIN. 3'0"X5'0" ENCLOSURES
5' MIN. 4'0"x6'6"x5'0" ENCLOSURES
5' MIN. 4'6"x8'6"x7'6" ENCLOSURES

SFPUC PRIMARY ENCLOSURE CLEARANCES

N.T.S.

GENERAL NOTES

1. ALL JOINT TRENCH CONSTRUCTION WORK SHALL BE IN ACCORDANCE WITH P.G. & E. UTILITY OPERATIONS UO STANDARD S5453. (ADOPTED BY LATHROP IRRIGATION DISTRICT)
2. ALL WORK SHALL BE SUBJECT TO THE INSPECTION AND SATISFACTION OF ALL PARTICIPATING UTILITIES AND CITY OR COUNTY INSPECTORS.
3. NO BACK FILLING SHALL BE PERFORMED UNLESS THE INSPECTOR IS PRESENT OR THE TRENCHING AGENT HAS RECEIVED PRIOR CONSENT FROM THE INSPECTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE ALL INSTALLATIONS INSPECTED PRIOR TO ANY BACK FILLING.
4. BACK FILL MATERIAL SHALL BE APPROVED BY THE PARTICIPATING UTILITIES, SOILS ENGINEER AND CITY OR COUNTY. CONSULT LOCAL AGENCIES FOR COMPACTION METHODS.
5. THE BOTTOM OF THE TRENCH SHALL BE CLEARED OF ROCKS AND OTHER HARD SURFACES AND A SAND CUSHION FOR AT LEAST TWO (2) INCHES MAY BE REQUIRED AS A PAD ON WHICH UTILITY FACILITIES CAN REST.
6. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE PAVEMENT AND/OR SIDEWALK WHERE REMOVED OR DAMAGED AS A RESULT OF ITS OPERATION (UNLESS OTHERWISE NOTED). REPLACEMENT OF PAVEMENT AND/OR SIDEWALK TO BE PER CONSTRUCTION DOCUMENTS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE AND NOTIFY ALL PARTICIPATING UTILITIES INSTALLATIONS.
8. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT FIRST NOTIFYING PSD AND SFPUC DISTRICT ENGINEER
9. ANY EXTRA CONSTRUCTION STAKING NECESSITATED SOLELY BY THE CONTRACTOR'S NEGLIGENCE WILL BE CHARGED TO AND PAID FOR BY THE CONTRACTOR.
10. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE TO PSD AT THE TIME OF PREPARATION OF THESE PLANS. THEIR LOCATIONS HAVE NOT BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE TO THE ACCURACY OF THE INFORMATION SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE PRECISE LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO THE START OF WORK. CONTACT UNDERGROUND SERVICE ALERT AT LEAST (2) FULL WORKING DAYS IN ADVANCE AT 811.
11. THE CONTRACTOR SHALL CONFORM TO THE APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA AND ALWAYS COMPLY WITH OSHA REQUIREMENTS.
12. THE DRAWINGS AND SPECIFICATIONS SHALL BE CONSIDERED TO BE COMPLIMENTARY TO EACH OTHER. ANYTHING SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS, OR MENTIONED IN THE SPECIFICATIONS AND NOT SHOWN ON THE DRAWINGS, SHALL BE OF LIKE EFFECT AS IF SHOWN ON OR MENTIONED IN BOTH. IF DISCREPANCY IS FOUND, NOTIFY PSD OR SFPUC DISTRICT ENGINEER PRIOR TO STARTING WORK.
13. TRENCH AND CONDUIT LAYOUTS ARE SHOWN SCHEMATICALLY.
14. TRENCHING OR SUBSTRUCTURE EXCAVATION MAY NECESSITATE OPERATION OVER, UNDER, OR ADJACENT TO OTHER UNDERGROUND UTILITIES (STORM, SEWER, WATER, ETC...) THE CONTRACTOR IS RESPONSIBLE TO LOCATE, PROSPECT, EXPOSE AND PROTECT ALL ADJACENT OR CROSSING UNDERGROUND UTILITIES. THIS WORK TO PROTECT THOSE UTILITIES IS NOT CONSIDERED AS EXTRA WORK. IT IS CONTRACTOR'S RESPONSIBILITY TO REVIEW IMPROVEMENT PLANS, IN CONJUNCTION WITH THIS PLAN, AND BID THE WORK ACCORDINGLY.
15. THE QUANTITIES SHOWN ON THESE PLANS ARE ESTIMATES OF WHAT WILL ACTUALLY BE NEEDED TO COMPLETE THIS PROJECT. FINAL QUANTITIES MAY VARY ACCORDING TO CHANGES, ADDITIONS, DELETIONS OR OMISSIONS ON THE ORIGINAL PLAN.
16. VERIFY ALL SUBSTRUCTURE EXCAVATION DIMENSIONS WITH SUPPLIER (S).
17. PSD ASSUMES NO RESPONSIBILITY FOR ANY VARIANCE BETWEEN THESE PLANS AND THE ACTUAL FIELD CONDITIONS. CONTRACTOR SHOULD REVIEW PROJECT SITE PRIOR TO SUBMITTING ITS BID.
18. THE CONTRACTOR IS REQUIRED TO EXCAVATE BELL HOLE (S) AT TIE IN LOCATIONS AS DIRECTED BY PARTICIPATING UTILITY.
19. RECORD DRAWINGS TO BE PROVIDED BY CONTRACTOR AFTER INSTALLATION OF P. G. & E. 'S GAS AND SFPUC'S ELECTRIC SYSTEM (PRIOR TO PRIMARY SPLICING).
20. CITY OR COUNTY INSPECTOR SHALL BE NOTIFIED TWO WORKING DAYS PRIOR TO COMMENCEMENT OF WORK. COORDINATE WITH INSPECTOR ANY SERVICES TO BE ABANDONED.
21. CONTRACTOR TO VERIFY RIGHT OF WAY, PUBLIC UTILITY EASEMENT AND/OR PUBLIC SERVICE EASEMENT ACQUISITION WITH THE APPLICANT PRIOR TO CONSTRUCTION WITHIN AREAS OF QUESTION.

NOTE:

A.) CALL USA TO FIELD VERIFY EXISTING TRENCH LOCATION(S).
B.) COORDINATE TIE IN WITH UTILITY COMPANY(S) AS REQUIRED.
C.) HAND DIG TO EXPOSE ALL EXISTING FACILITIES.

POWER SYSTEMS DESIGN PSD
2033 N. MAIN STREET, SUITE 200
WALNUT CREEK, CA 94596
TEL: 925-933-8485
WWW.POWERSYSTEMSDESIGN.NET
PLANNING • TRANSMISSION • DISTRIBUTION • SUBSTATION • DRY UTILITY DESIGN

LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER
DAVE C. NEWMAN
Exp. 6/30/16
C33388
CIVIL
STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II
CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

JOINT TRENCH GENERAL NOTES & DETAILS

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design AV
Drawn AV
Approved AV
Job No. PSD13-038

Drawing Number:
JT2.0
OF 4

811
Know what's below.
Call 811 before you dig.

JOINT TRENCH OCCUPANCY GUIDE						
SECTION	G	T or D	C	S	P
A*^	X	X	X	X	X
B*^	X	X		X	X
C*	X		X	X	X
D*^		X	X	X	X
E*	X			X	X
F*^		X		X	X
G*			X	X	X
H*				X	X
I^	X	X	X		
J^	X	X			
K	X		X		
L^		X	X		
M^	X	X	X	X	
N^	X	X		X	
O	X		X	X	
P^		X	X	X	
Q	X			X	
R^		X		X	
S			X	X	
T	X				
U		X			
V			X		
W				X	
X#		X			

*THESE SECTIONS MAY OR MAY NOT CONTAIN SECONDARY

^THESE SECTIONS MAY OR MAY NOT CONTAIN D.T.I.S. CONDUIT

#THIS SECTION ONLY CONTAINS D.T.I.S. CONDUIT

MINIMUM COVER & CLEARANCES MINIMUM SEPARATION FROM

UTILITY	G	DU T	DB T	C	S	P	SL	MINIMUM COVER
G (GAS)*	–	12"	12"	12"	6"	12	6"	24"; 30" IN STREET
T (TELEPHONE, DUCT)	12"	–	1"	1"	12"	12"	12"	24"; 30" IN STREET
T (TELEPHONE, DIRECT BURY)	12"	1"	–	1"	12"	12"	12"	24"; 30" IN STREET
C (CABLE T.V.)	12"	1"	1"	–	12"	12"	12"	24"; 30" IN STREET
S (ELECT. SECONDARY)	6"	12"	12"	12"	1.5"	3"	1.5"	24"; 30" IN STREET
P (ELECT. PRIMARY)	12	12"	12"	12"	3"	3"	3"	30"; 36" IN STREET
SL (PUBLIC STREET LIGHT)	6"	12"	12"	12"	1.5"	3"	1.5"	24"; 30" IN STREET

LEGEND

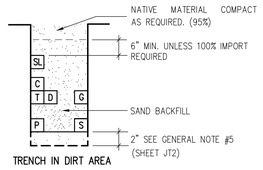
- ☐ MEETS UTILITY TRENCH ALLOTMENT
- ▭ EXCEEDS UTILITY TRENCH ALLOTMENT
- G GAS
- P ELECTRIC PRIMARY
- S ELECTRIC SECONDARY
- T TELEPHONE
- D S.F. COMM./ALARM/SECURITY
- C CATV
- SL STREET LIGHT

NOTES:

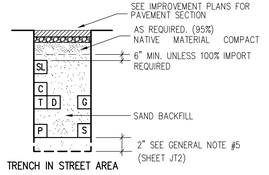
1. TRENCH COVER & CLEARANCES SHOWN ARE MINIMUMS ONLY AND MAY REQUIRE ALTERATIONS TO SUIT FIELD CONDITIONS.
2. IT IS RECOMMENDED THAT ALL FACILITIES ARE TO BE A MINIMUM OF 12" BELOW SUBBASE DISTURBANCE.

* WITH MUTUAL AGREEMENT FROM PARTICIPATING UTILITIES, WHEN 4" O.D. OR SMALLER GAS PIPE IS INSTALLED, SEPARATION MAY BE REDUCED TO NOT LESS THAN 6" BETWEEN GAS AND COMMUNICATION DUCTS (TELEPHONE & CATV).

* WHERE 6" GAS MAIN IS IN JOINT TRENCH 12" MINIMUM SEPARATION FROM GAS MAIN TO ALL UTILITIES WILL BE REQUIRED.



TRENCH IN DIRT AREA

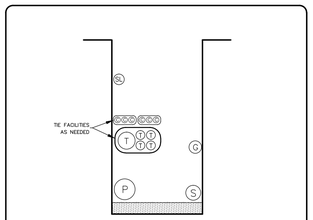


TRENCH IN STREET AREA

NOTE:

A.) TRENCH CONFIGURATIONS SHOWN ARE FOR INSTALLATIONS WHERE EACH OCCUPANT IS UTILIZING HIS ENTIRE SPACE ALLOCATION. OTHER CONFIGURATIONS, OR REDUCED DIMENSIONS, MAY BE USED PROVIDED THAT MINIMUM COVER AND CLEARANCES ARE MAINTAINED.

B.) CONTRACTOR TO ADJUST TRENCH DEPTHS AT ALL JOINT TRENCH LATERAL CROSSINGS TO MAINTAIN REQUIRED CLEARANCES BETWEEN ALL PARTICIPATING UTILITIES.

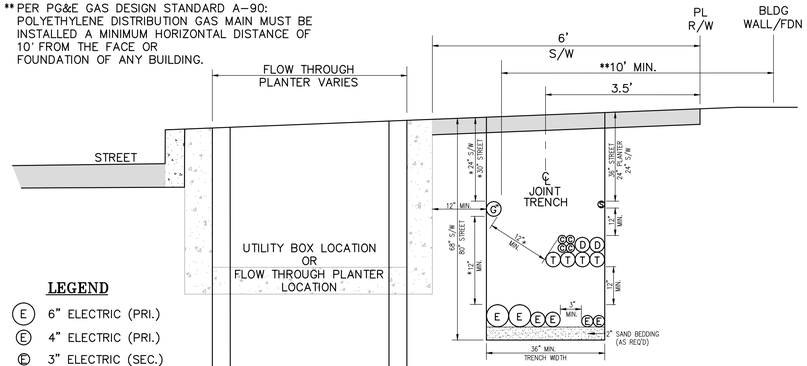


TYPICAL EXAMPLE OF STACKING FACILITIES IN JOINT TRENCH
N.T.S.

GAS PIPE SIZE TABLE		
TRENCH SECTION	GAS PIPE SIZE	LENGTH
A5	_"	___'
A7	_"	___'
E3	_"	___'
I3	_"	___'
T1	_"	___'

GAS PIPE SIZE TABLE IS FOR REFERENCE ONLY. REFER TO THE PG&E GAS CONSTRUCTION PLAN FOR GAS PIPE SIZES AND INSTALLATION DETAILS.

**PER PG&E GAS DESIGN STANDARD A-90: POLYETHYLENE DISTRIBUTION GAS MAIN MUST BE INSTALLED A MINIMUM HORIZONTAL DISTANCE OF 10' FROM THE FACE OR FOUNDATION OF ANY BUILDING.



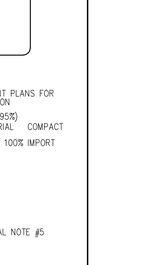
LEGEND

- (E) 6" ELECTRIC (PRI.)
- (E) 4" ELECTRIC (PRI.)
- (E) 3" ELECTRIC (SEC.)
- (G) 2" OR 4" GAS
- (T) 4" TELEPHONE
- (D) 4" S.F. COMM./ALARM/SECURITY
- © 2" C.A.T.V.
- (S) 1.5" STREET LIGHT

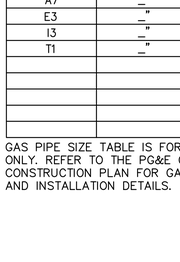
* NO UTILITIES CAN BE PLACED OVER 6" OR 8" PLASTIC GAS PIPE. IN ADDITION, 6" OR 8" PLASTIC GAS PIPE REQUIRES 12" CLEARANCE ON BOTH SIDES AND BENEATH PIPE. THIS CLEARANCE IS REQUIRED TO ACCESS PIPE WHEN USING HYDRAULIC PIPE SQUEEZERS.

TRENCH SECTION EXAMPLE (TYP.)
DETAIL F N.T.S.

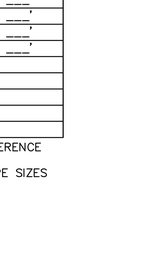
SECTION A5
130' LF-TOTAL
__' LF-R&R



SECTION C5
27' LF-TOTAL
__' LF-R&R

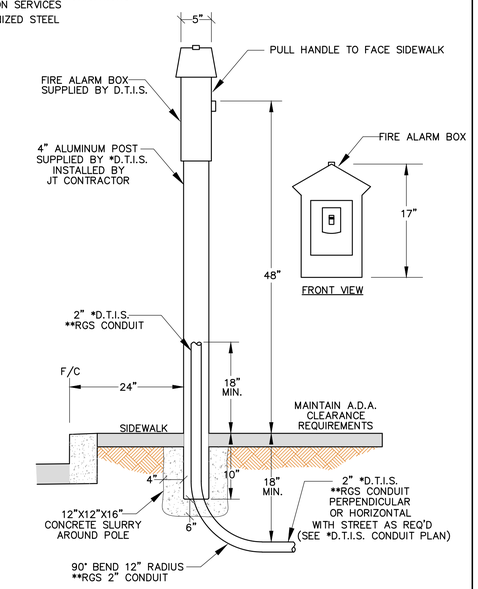


SECTION H3
16' LF-TOTAL
__' LF-R&R



SECTION L3
4' LF-TOTAL
__' LF-R&R

*DEPARTMENT OF TELECOMMUNICATIONS & INFORMATION SERVICES
**RIGID GALVANIZED STEEL



POLE & CONDUIT INSTALLATION DETAIL
FIRE ALARM PULL STATION LOCATED BETWEEN PEDESTRIAN RAMPS
N.T.S.

NOTE:

A.) CALL USA TO FIELD VERIFY EXISTING TRENCH LOCATION(S).

B.) COORDINATE TIE IN WITH UTILITY COMPANY AS REQUIRED.

C.) HAND DIG TO EXPOSE ALL EXISTING FACILITIES.

2033 N. MAIN STREET, SUITE 200
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LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER DALE D. NEWKIRK EXP. 6/30/16 C35388 CIVIL STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II
CALIFORNIA
CITY AND COUNTY OF SAN FRANCISCO

JOINT TRENCH SECTIONS & DETAILS

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design AV
Drawn AV
Approved AV
Job No PSD13-038

Drawing Number:
JT3.0
OF 4

811
Know what's below.
Call 811 before you dig.

JOINT TRENCH OCCUPANCY GUIDE					
SECTION	G	T or D	C	S	P
A*^	X	X	X	X	X
B*^	X	X		X	X
C*	X		X	X	X
D*^		X	X	X	X
E*	X			X	X
F*^		X		X	X
G*			X	X	X
H*				X	X
I^	X	X	X		
J^	X	X			
K	X		X		
L^		X	X		
M^	X	X	X	X	
N^	X	X		X	
O	X		X	X	
P^		X	X	X	
Q	X			X	
R^		X		X	
S			X	X	
T	X				
U		X			
V			X		
W				X	
X#		X			

*THESE SECTIONS MAY OR MAY NOT CONTAIN SECONDARY

^THESE SECTIONS MAY OR MAY NOT CONTAIN D.T.I.S. CONDUIT

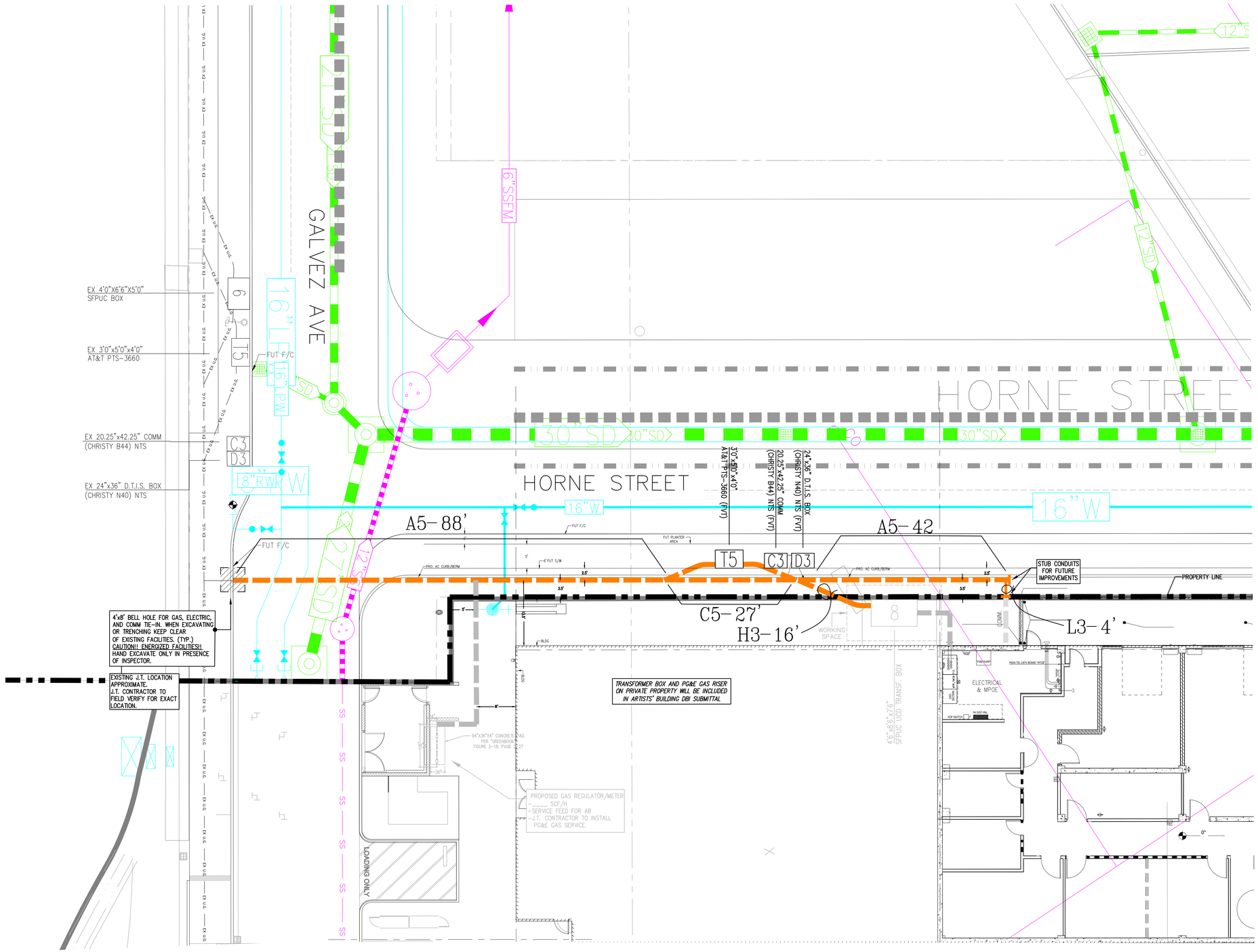
#THIS SECTION ONLY CONTAINS D.T.I.S. CONDUIT

EXISTING PAVEMENT NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE PAVEMENT AND/OR SIDEWALK WHERE REMOVED OR DAMAGED AS A RESULT OF ITS OPERATION (UNLESS OTHERWISE NOTED). REPLACEMENT OF PAVEMENT AND/OR SIDEWALK TO BE PER CITY SPECIFICATIONS.

NOTES:

1. FIELD ADJUST SERVICE XING TO MINIMIZE INTERFERENCE WITH EXISTING FACILITIES (TYPICAL).
2. FIELD ADJUST SPLICE BOXES TO KEEP CLEAR OF SIDEWALK, DRIVEWAYS AND EXISTING FACILITIES (TYPICAL).
3. TRANSITION TO VAULTS FROM TRENCH AS SHOWN, SEE TRANSITION DETAIL SHEET JT2 (TYPICAL).
4. INCIDENTAL TRENCHING TO SPLICE BOXES NOT SHOWN (TYPICAL). CONTRACTOR TO PROVIDE ADDITIONAL TRENCHING AS REQUIRED FOR CONDUIT ROUTING TO SPLICE BOXES AND CABINETS (TYPICAL).
5. OFFSET SPLICE BOXES TO ROUTE TELEPHONE/ FIBER OPTIC CONDUIT AS NEEDED (TYPICAL).
6. ALL SFPUC SPLICE BOXES ADJACENT TO TRANSFORMER SHALL BE 26" IN DEPTH (TYPICAL).
7. DUE TO UNCERTAINTIES OF THE EXACT LOCATION OF EXISTING FACILITIES, FIELD LOCATING OF PROPOSED FACILITIES MAY BE REQUIRED. CONFIRM WITH VARIOUS UTILITIES FOR EXACT PLACEMENT.
8. EDGE OF SPLICE BOXES & PEDESTALS SHALL BE 5' FROM EDGE OF F.H. AND 3' FROM STREET LIGHT (TYP.) CONTRACTOR TO AVOID DISTURBING F.H. THRUST BLOCK.
9. MAINTAIN CLEAR & LEVEL WORKING SPACE AROUND PRIMARY SPLICE BOXES & XFMRS PER PG&E DOCUMENT 05112.
10. COORDINATE TIE-IN WITH UTILITY COMPANY AS REQUIRED.
11. RESPECTIVE UTILITY TO OBTAIN CITY OR COUNTY APPROVAL OF ALL ABOVE GROUND EQUIPMHNT.
12. HAND DIG TO EXPOSE ALL EXISTING FACILITIES.
13. CALL USA TO FIELD VERIFY EXISTING TRENCH LOCATION(S).
14. FIELD LOCATE JOINT TRENCH FACILITIES TO KEEP CLEAR OF SERVICE LATERALS. SERVICE LATERALS TO BE ROUTED TO AVOID SPLICE BOX. (ADDITIONAL P.U.E MAY BE REQUIRED.)


GALVEZ AVE
HORNE STREET
HORNE STREE
EX 4'0"X6'6"X5'0" SFPUC BOX
EX 3'0"x5'0"x4'0" AT&T PTS-3660
EX 20.25"x42.25" COMM (CHRISTY B44) NTS
EX 24"x36" D.T.I.S. BOX (CHRISTY N40) NTS
30"x30"x40" AT&T PTS-3660 (FVT)
20.25"x42.25" COMM (CHRISTY B44) NTS (FVT)
24"x36" D.T.I.S. BOX (CHRISTY N40) NTS (FVT)
A5-88'
A5-42
C5-27'
H3-16'
L3-4'
T5
C3
D3
STUB CONDUITS FOR FUTURE IMPROVEMENTS
PROPERTY LINE
4'x8' BELL HOLE FOR GAS, ELECTRIC, AND COMM TIE-IN. WHEN EXCAVATING OR TRENCHING KEEP CLEAR OF EXISTING FACILITIES. (TYP.)
CAUTION!! ENERGIZED FACILITIES!! HAND EXCAVATE ONLY IN PRESENCE OF INSPECTOR.
EXISTING J.T. LOCATION APPROXIMATE. J.T. CONTRACTOR TO FIELD VERIFY FOR EXACT LOCATION.
TRANSFORMER BOX AND PG&E GAS RISER ON PRIVATE PROPERTY WILL BE INCLUDED IN ARTISTS' BUILDING DBI SUBMITTAL
PROPOSED GAS REGULATOR/METER SET -SERVICE FEED FOR AB -J.T. CONTRACTOR TO INSTALL PG&E GAS SERVICE.
4'6"x8'6"x7'6" SFPUC LVCD TRANSF. BOX
ELECTRICAL & MPOE
LOADING ONLY
WORKING SPACE
16"W
30"SD
12"SD
6"SSFM
16"LPW
8"RWW

CAUTION! ENERGIZED FACILITIES!

CONTRACTOR TO EXERCISE EXTREME CAUTION TO AVOID DAMAGING EXISTING UNDERGROUND UTILITIES. OBSTRUCTIONS INDICATED ARE FOR INFORMATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND DEPTH WITH THE APPROPRIATE AGENCIES. NEITHER THE OWNER NOR THE DESIGNER ASSUME ANY RESPONSIBILITY THAT THE OBSTRUCTIONS INDICATED WILL ACTUALLY BE THE OBSTRUCTIONS ENCOUNTERED. POTHOLING IS REQUIRED. HAND EXCAVATE ONLY IN PRESENCE OF UTILITY INSPECTOR.

NOTE:
ALL BOXES TO BE INSTALLED WITHIN THE R/W AND/OR PUE AREA.

R/W, P.U.E. & P.U.E. ACQUISITION NOTE:
CONTRACTOR TO VERIFY RIGHT OF WAY, PUBLIC UTILITY EASEMENT AND/OR PUBLIC SERVICE EASEMENT ACQUISITION WITH THE APPLICANT PRIOR TO CONSTRUCTION WITHIN AREAS OF QUESTION.

STUB SERVICE COMPLETIONS BY APPLICANT:
CONTRACTOR TO TRENCH, INSTALL FACILITIES AND BACKFILL SERVICE COMPLETIONS.

NOTE:
A.) CALL USA TO FIELD VERIFY EXISTING TRENCH LOCATION(S).
B.) COORDINATE TIE IN WITH UTILITY COMPANY AS REQUIRED.
C.) HAND DIG TO EXPOSE ALL EXISTING FACILITIES.

SCALE: 1" = 10'

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LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER
DAVID D. NEWKIRK
EXP. 6-30-16
C33388
CIVIL
STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II
CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

JOINT TRENCH INTENT PLAN

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design AV
Drawn AV
Approved AV
Job No. PSD13-038

Drawing Number:
JT4.0
OF 4

Know what's below. Call 811 before you dig.

S.F.P.U.C. POWER - ELECTRIC
12kV UNDERGROUND SUBSTRUCTURE SYSTEM
HUNTER'S POINT PHASE II
102 HORNE AVENUE
SAN FRANCISCO, CA

CONSTRUCTION DRAWING LEGEND

(PROPOSED)

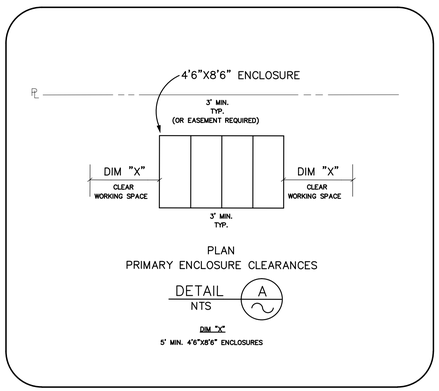
—— D ——	CONDUIT (SCH. 40 PVC SIZE AND NUMBER AS INDICATED)
[8]	4'6"X8'6"X7'6" PRIMARY SPLICE BOX OR TRANSFORMER ENCLOSURE
D=55'	DUCT LENGTH
(180°)	TOTAL DEGREES OF BENDS IN CONDUIT RUN (SEE NOTE 4)

(EXISTING)

—D—	CONDUIT (SCH. 40 PVC SIZE AND NUMBER AS INDICATED)
[8]	4'6"X8'6"X7'6" PRIMARY SPLICE BOX
[6]	4'0"X6'6"X5'0" PRIMARY SPLICE BOX

(FUTURE)

—D—	CONDUIT (SCH. 40 PVC SIZE AND NUMBER AS INDICATED)
[8]	4'6"X8'6"X7'6" UCD TRANSFORER ENCLOSURE



PLAN
PRIMARY ENCLOSURE CLEARANCES

DETAIL A
NTS

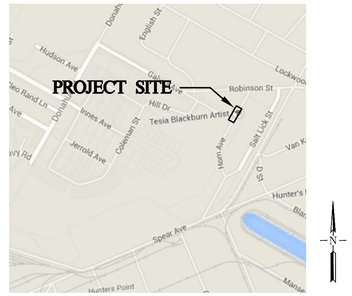
DIM "X"
5' MIN. 4'6"X8'6" ENCLOSURES

DRAWING LIST

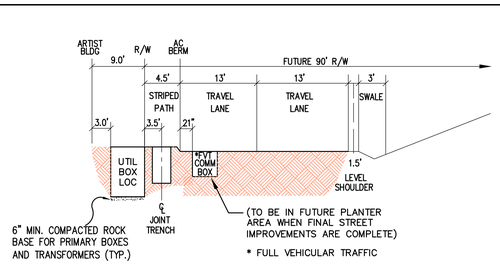
E2.0	SINGLE LINE DIAGRAM	SHEET 2
E3.0	CONSTRUCTION DRAWING	SHEET 3

REFERENCES

JOINT TRENCH UTILITY COMPOSITE DRAWING SET
POWER ENTERPRISE SFPUC – ELECTRIC SERVICE GUIDELINES
SFPUC 12kV DISTRIBUTION SUBSTRUCTURE MATERIAL SPECIFICATION
PG&E ELECTRIC UNDERGROUND CONSTRUCTION MANUAL

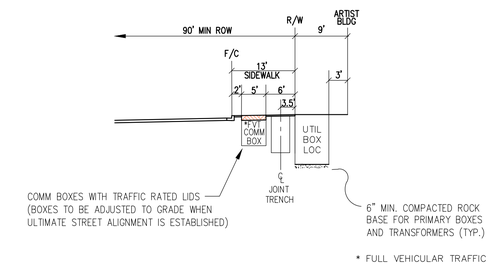


VICINITY MAP
NO SCALE



HORNE STREET TRENCH SECTION

NOT TO SCALE



FUTURE HORNE STREET ARRANGEMENT

NOT TO SCALE

JOINT TRENCH AND UTILITY BOX LOCATION

NOT TO SCALE
NOTE: SEE PLANS FOR CONFIGURATIONS AND ARRANGEMENTS.

GENERAL NOTES

1. APPLICANT CONTRACTOR TO PROVIDE ALL SUBSTRUCTURE WORK IN COMPLIANCE WITH THESE DRAWINGS, SFPUC SERVICE GUIDELINES AND DIRECTION OF SFPUC INSPECTOR. ALL ELECTRICAL EQUIPMENT, CABLES AND SPLICING SHALL BE SUPPLIED AND INSTALLED BY SFPUC POWER PERSONNEL. THESE DRAWINGS ARE SCHEMATIC IN NATURE, SEE JOINT TRENCH UTILITY COMPOSITE DRAWING SET FOR DETAILED TRENCH LOCATION, OCCUPANCY AND BOX LOCATIONS. REFER TO PG&E UNDERGROUND CONSTRUCTION MANUAL FOR BOX AND VAULT INSTALLATION DETAILS.
2. CITY PERMITS REQUIRED.
3. RIGID CAP ALL SPARE OR FUTURE DIST. CONDUITS 5' BEYOND IMPROVEMENTS.
4. CONDUIT INSTALLATION SHALL COMPLY WITH THE POWER ENTERPRISE SFPUC SERVICE GUIDELINES, PAGE 8 TABLE 2 (ACCOMPANYING MATERIAL SPECIFICATIONS). THIS TABLE DOCUMENTS LIMITATIONS ON ALLOWABLE BENDS AND ENCASEMENT REQUIREMENTS FOR CONDUIT BENDS IN CONDUIT RUNS. SCHEDULE 40 PVC CONDUIT IS ACCEPTABLE PER SFPUC ENGINEERING.
5. SEE UTILITY COMPOSITE DRAWING FOR ACTUAL TRENCH AND SUBSTRUCTURE LOCATIONS, MECHANICAL PROTECTION AND RETAINING WALLS (IF REQUIRED).
4. LOCATE ALL EXISTING UNDERGROUND FACILITIES BEFORE TRENCHING AND EXCAVATION. CALL USA AT 811 TWO DAYS BEFORE YOU DIG.
5. PROVIDE CLEARANCES AND WORKING SPACE PER PG&E DWG. ES 051122. SEE DETAIL 'A' THIS SHEET.
6. BKF ENGINEERS TO VERIFY ADEQUATE LAND RIGHTS EXIST FOR PROPOSED FACILITIES.
7. CONTACT MR. TAI HOANG SFPUC INSPECTION DEPARTMENT AT (415) 554–2445 48 HOURS BEFORE COMMENCEMENT OF CONSTRUCTION. WORK NOT PROPERLY INSPECTED BY SFPUC WILL BE REJECTED.
8. ALL SERVICE ENTRANCE FACILITIES SHALL CONFORM TO THE LATEST REVISION OF THE PG&E "GREENBOOK" SERVICE REQUIREMENTS (EUSERC STDS).
9. DO NOT EXCEED 315 DEGREES OF BENDS IN ANY CONDUIT RUN (INCLUDING BEND AT THE FEED IN LOCATION). SEE NOTE 4.
10. ACCOMPANYING MATERIAL SPECIFICATION QUANTITIES ARE ESTIMATED ONLY. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL NECESSARY TO COMPLETE A FULLY OPERATIONAL SUBSTRUCTURE SYSTEM PER THESE DRAWINGS, SFPUC STANDARDS AND SFPUC ACCEPTANCE CRITERIA.
11. DUE TO LIMITED INITIAL IMPROVEMENTS, THE APPLICANT WILL INSURE THAT ALL SUBSTRUCTURES INSTALLED ARE NOT DAMAGED, AND SHALL ASSUME RESPONSIBILITY FOR REPAIR OF SUCH FACILITIES SHOULD THEY BECOME DAMAGED, DURING SUBSEQUENT CONSTRUCTION.
12. STREET LIGHTING NOT A PART OF THIS PLAN SET.
13. INTERIM SOURCE WILL BE A 200A CIRCUIT FROM COLEMAN STREET, ULTIMATE FEED WILL BE FROM A 600A CIRCUIT ON GALVEZ AVENUE.
14. CORROSION TESTS INDICATE 4 POINTS OUT OF AN ALLOWABLE 6 POINTS PER PG&E ES DWG. 072149. ONLY SOIL RESISTIVITY IN OHM–CM PRODUCED 4 POINTS. GROUND WATER LEVEL AT SUBSURFACE DISTRIBUTION TRANSFORMER LOCATIONS IS GREATER THAN 10.5' FROM FINISHED GRADE
15. BOXES AND VAULTS SHALL BE MARKED APPROPRIATELY IDENTIFYING SFPUC OWNERSHIP, PER SFPUC SERVICE GUIDELINES, APPENDIX 'A' DRAWINGS. NAMEPLATE DETAILS AND REQUIREMENTS ARE ILLUSTRATED ON DRAWINGS IN THAT SECTION.

DEPARTMENT OF PUBLIC WORKS
MASS GRADING, DEMOLITION, &
UTILITY PHASE II PERMIT PLANS

WINTER PEAK LOADING
INSUL DIST. A
12kV CORR.

POWER SYSTEMS DESIGN PSD
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LENNAR URBAN

CERTIFIED BY:
REGISTERED PROFESSIONAL ENGINEER
CLIFFORD H. SMITH
No. E 16794
Exp. 09/30/15
ELECTRICAL
STATE OF CALIFORNIA

SAN FRANCISCO PUBLIC POWER
HUNTERS POINT PHASE II — BUILDING 101 ARTISTS SUB-PHASE
12kV UNDERGROUND DISTRIBUTION SUBSTRUCTURE SYSTEM
CITY AND COUNTY OF SAN FRANCISCO — CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
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Job No PSD13-038

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811
Know what's below.
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S.S. 600A 3-WAY SWITCH
15 kV
4.5'X8.5'X6.0' VAULT

TO SA-15

3-1/0A EPR-CONC-ENCAP-PE
15 kV CABLE IN
1-4" PVC CONDUIT

TO FUT. T-18

SA-17
S.S. 200A JUNCTION
15 kV
4.5'X8.5'X6.0' VAULT

3-1/0A EPR-CONC-ENCAP-PE
15 kV CABLE IN
1-4" PVC CONDUIT

3-1/0A EPR-CONC-ENCAP-PE
3 15 kV CABLE IN
1-4" PVC CONDUIT
(SFPUC REPLACE 1Ø CABLE RUN W/3Ø CABLE RUN)

TO FROG BUILDING

P.M. DISTRIBUTION TRANSFORMER
50 kVA, 1Ø, 12,000-20,780GRDY-120/240V

~~EX. 200A JUNCTION~~
IN ~~3.0'X5.0'X4.5'~~ VAULT
SFPUC REPLACE 3.0'X5.0'X4.5' VAULT
WITH 4.5'X8.5'X7.5' VAULT
SFPUC INSTALL 3-WAY 600A SWITCH
(PER SFPUC ENGINEERING)

2-200A 15 kV SPLICES
IN 3.0'X5.0'X4.5' VAULT

4.5'X8.5'X7.5' VAULT
(PER SFPUC ENGINEERING)

EXISTING SFPUC SYSTEM

PROPOSED SFPUC SYSTEM
HUNTER'S POINT
DPW & COMMERCIAL KITCHEN SUBMITTAL

F.I.
F.I.

2-1/0A EPR-CONC-ENCAP-PE
15 kV CABLE IN
1-4" PVC CONDUIT
(SFPUC REPLACE 1Ø CABLE RUN
TO ACCOMMODATE VAULT REPLACEMENT)

2-6" PVC CONDUITS

2-6" PVC CONDUITS

S.S. 600A 3-WAY FUSED SWITCH
15 kV
4.5'X8.5'X7.5' VAULT
(FUTURE 600A CKT)

3-1/0A EPR-CONC-ENCAP-PE
15 kV CABLE IN
2-4" PVC CONDUITS
(1 SPARE)

3-1/0A EPR-CONC-ENCAP-PE
15 kV CABLE IN
2-6" PVC CONDUITS
(1 SPARE)
(FUTURE 600A CKT)

COLEMAN ST

2-6" PVC CONDUITS

F.I.
F.I.

S.S. 600A 3-WAY FUSED SWITCH
15 kV
4.5'X8.5'X7.5' VAULT
(FUTURE 600A CKT)

PUBLIC
ARTIST'S PARCEL

3-1/0A EPR-CONC-ENCAP-PE
15 kV CABLE IN
2-4" PVC CONDUITS
(1 SPARE)

GALVEZ AVE

3-200A 15 kV SPLICES
3-200A 15 kV SPLICES
(FUTURE)
IN 3.0'X5.0'X4.5' VAULT
(FOR PULLING)

2-6" PVC CONDUITS

2-6" PVC CONDUITS

2-6" PVC CONDUITS

2-6" PVC CONDUITS

HORNE AVE

2-6" PVC CONDUITS

2-4" PVC CONDUITS

HA
PRCLF
BAY
HB
3-L.A.
15 kV
MOVE
X
Δ Y
Xo

7-5" PVC CONDUITS
TO ARTIST'S BUILDING
(2,000A SWBD)

3-1/0A EPR-CONC-ENCAP-PE
15 kV CABLE IN
2-4" PVC CONDUITS
(1 SPARE)

HUNTER'S POINT
ARTISTS' BUILDING PROJECT

S.S. DISTRIBUTION TRANSFORMER
___kVA, 3Ø, IN 4.5'X8.5'X7.5' VAULT
12,000-20,780GRDY/12,000-120/208YY

3-200A 15 kV SPLICES
IN 3.0'X5.0'X4.5' VAULT
(FOR PULLING)

3-1/0A EPR-CONC-ENCAP-PE
15 kV CABLE IN
2-4" PVC CONDUITS
(1 SPARE)

3-L.A.
15 kV
MOVE
Xo
HB
BAY
PRCLF
HA
X Y Δ

3-5" PVC CONDUITS
TO COMMERCIAL KITCHEN
(1,000A SWBD)

P.M. DISTRIBUTION TRANSFORMER
___ kVA, 3Ø, ON IIE PAD
12,000-20,780GRDY/12,000-120/208YY

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LENNAR URBAN

CERTIFIED BY:
REGISTERED PROFESSIONAL ENGINEER
CLIFFORD H. BROWN
No. E 16794
Exp. 09/30/16
ELECTRICAL
STATE OF CALIFORNIA

SAN FRANCISCO PUBLIC POWER

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE III

12kV DISTRIBUTION SYSTEM
SINGLE LINE DIAGRAM

CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design AV
Drawn AV
Approved AV
Job No PSD13-038

Drawing Number:
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Know what's below.
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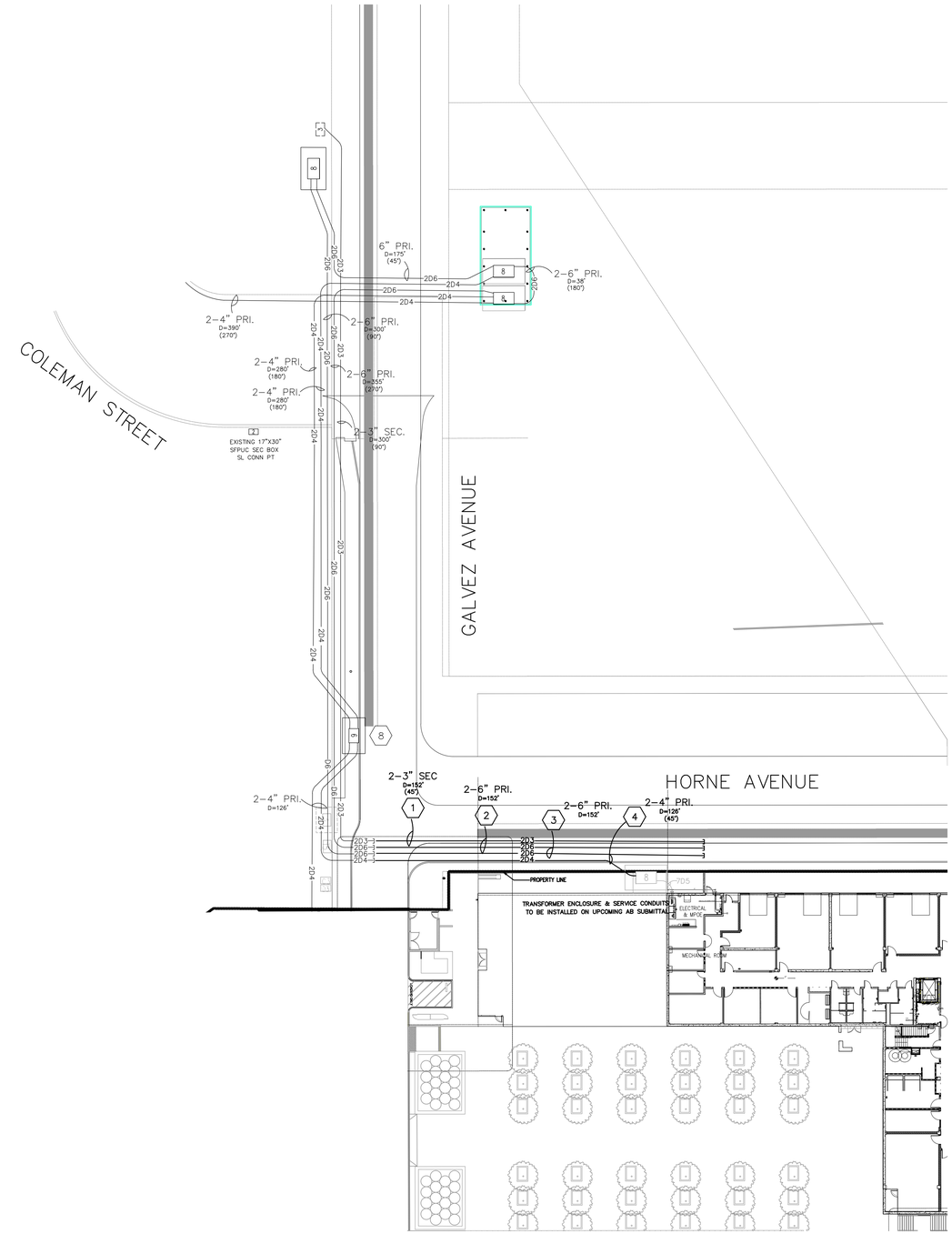

SCALE: 1" = 30'

WINTER PEAK LOADING
INSUL DIST. A
12kV CORR.

GENERAL NOTES

1. SEE GENERAL NOTES AND LEGEND, SHEET E1.0.

POWER SYSTEMS DESIGN PSD
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WALNUT CREEK, CA 94596
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STATE OF CALIFORNIA

SAN FRANCISCO PUBLIC POWER

BUILDING 101 ARTISTS SUB-PHASE

HUNTERS POINT PHASE II

INSTALL 12kV UNDERGROUND SUBSTRUCTURE SYSTEM

CITY AND COUNTY OF SAN FRANCISCO

CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design AV
Drawn AV
Approved AV
Job No PSD13-038

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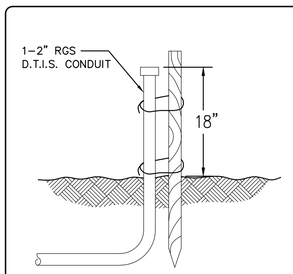
E3.0
OF 3

D.T.I.S. SUBSTRUCTURE PLAN
HUNTERS POINT PHASE II
SAN FRANCISCO - CALIFORNIA

Know what's below. Call 811 before you dig.

LEGEND

———	D.T.I.S. SCH. 80 PVC OR RGS CONDUIT (SIZE & QUANTITY AS SHOWN)
DT	24"x36" D.T.I.S. SAN FRANCISCO COMM. (CHRISTY N40)
———	EX D.T.I.S. SCH. 80 PVC OR RGS CONDUIT (SIZE & QUANTITY AS SHOWN)
DT	EX 24"x36" D.T.I.S. SAN FRANCISCO COMM. (CHRISTY N40)
FA	FIRE ALARM PULL STATION
D.T.I.S.	DEPARTMENT OF TELECOMMUNICATIONS & INFORMATION SERVICES
RGS	RIGID GALVANIZED STEEL



1. STUB D.T.I.S. CONDUIT WITH PULL ROPE AND STAKE AS SHOWN. (TIE AS NEEDED)
2. INSTALL 2" CAP PLUG TO KEEP DEBRIS OUT.
3. PROVIDE HIGH VISIBILITY FLAGGING.

DETAIL C / DT1 N.T.S.

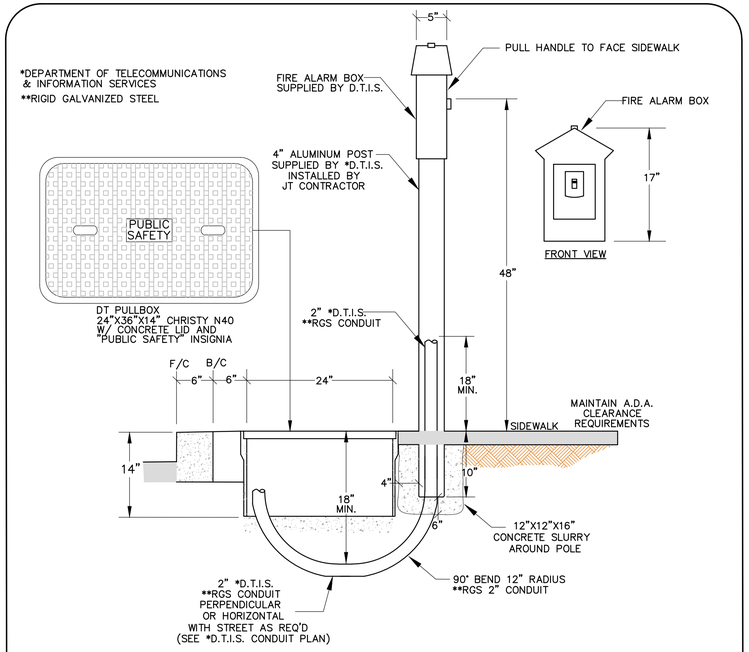
FIRE ALARM PULL STATION CONDUIT STUB

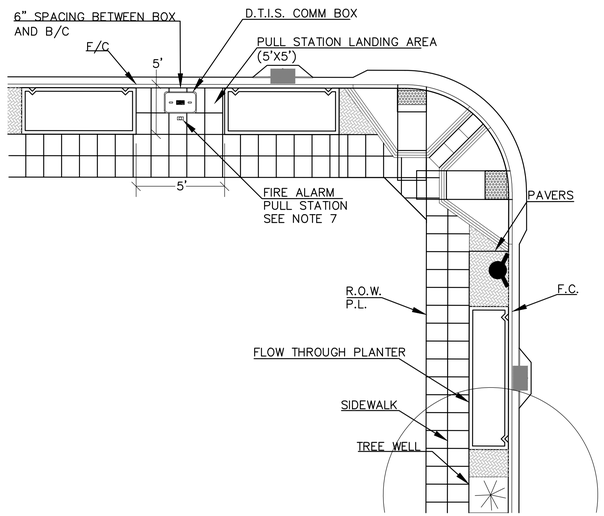
N.T.S.

GENERAL NOTES:

1. ALL D.T.I.S. 4" PVC CONDUIT SHALL BE SCHEDULE 80 BETWEEN PULL BOXES. D.T.I.S. CONDUIT(S) TO BE INSTALLED ON TOP OF THE COMMUNICATION LEVEL WHEN PARTICIPATING IN THE JOINT TRENCH. D.T.I.S. CONTRACTOR TO PROVIDE AND INSTALL PULL ROPE IN ALL D.T.I.S. CONDUITS AND TERMINATE IN BOXES AND POLES AS APPLICABLE.
2. 2" RIGID GALVANIZED STEEL (RGS) CONDUIT TO BE INSTALLED BETWEEN FIRE ALARM PULL STATION AND NEAREST D.T.I.S. PULL BOX. SEE DETAILS 'A', 'B' AND 'C' ON THIS SHEET FOR ADDITIONAL INFORMATION.
3. INSTALL #10 AWG TRACER WIRE WITH ORANGE POLYETHYLENE (LLDP) INSULATION DIRECT BURIAL, ON ALL CONDUIT ROUTES SHOWN. TERMINATE INSIDE BOXES AND POLES AS APPLICABLE.
4. PULL BOXES TO BE CHRISTY N40 24"X36"X14" WITH CONCRETE LIDS INSCRIBED WITH "PUBLIC SAFETY". USE BOX EXTENSIONS AS NECESSARY.
5. D.T.I.S. TO FURNISH 4" ALUMINUM POST FOR CONTRACTOR INSTALL, FIRE ALARM PULL STATION AND INTERNAL CABLING TO BE DONE BY THE CITY.
6. 4" ALUMINUM POST FOUNDATION SHALL BE CONCRETE SLURRY AND A MINIMUM OF 12"X12"X16".
7. PULL STATION LOCATION(S) TO BE APPROVED BY THE CITY. SEE CIVIL PLANS FOR ADDITIONAL LOCATION DETAILS.

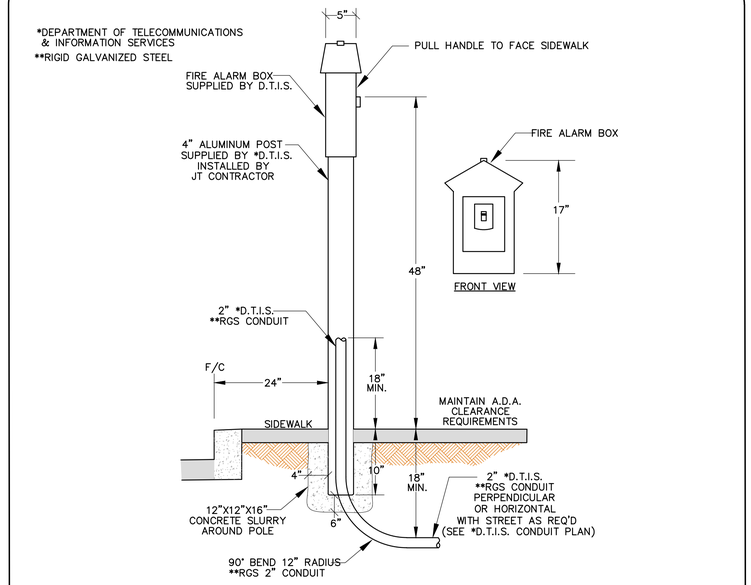
DEPARTMENT OF PUBLIC WORKS
MASS GRADING, DEMOLITION, &
UTILITY PHASE II PERMIT PLANS

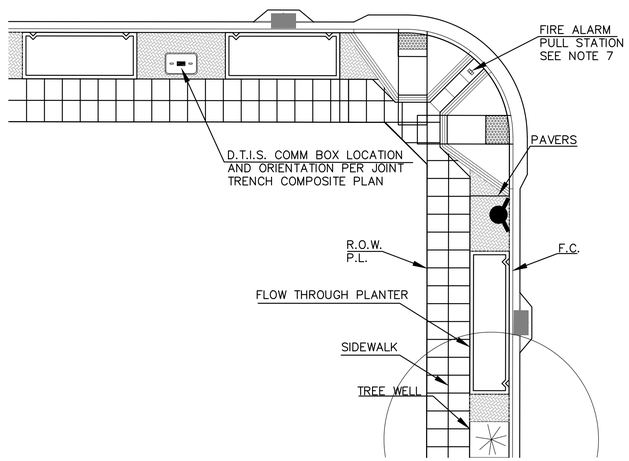




POLE, BOX, & CONDUIT INSTALLATION DETAIL
FIRE ALARM PULL STATION LOCATED IN FURNISHING ZONE

DETAIL A / DT1 N.T.S.





POLE & CONDUIT INSTALLATION DETAIL
FIRE ALARM PULL STATION LOCATED BETWEEN PEDESTRIAN RAMPS

DETAIL B / DT1 N.T.S.

POWER SYSTEMS DESIGN PSD
2033 N. MAIN STREET, SUITE 200
WALNUT CREEK, CA 94596
TEL: 925-933-8485
WWW.POWERSYSTEMSDESIGN.NET
PLANNING • TRANSMISSION • DISTRIBUTION • SUBSTATION • DRY UTILITY DESIGN

LENNAR URBAN

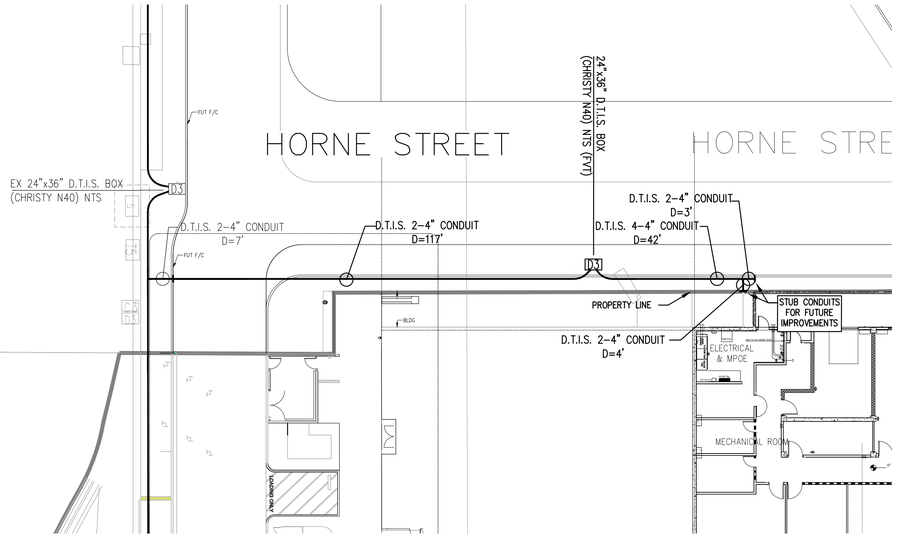
BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II
DEPARTMENT OF TELECOMMUNICATIONS AND INFORMATION SERVICES SUBSTRUCTURE PLAN
CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design AV
Drawn AV
Approved AV
Job No PSD13-038

Drawing Number:
DT1.0
OF 2

Know what's **below.**
Call 811 **before you dig.**



NOTE:
ALL BOXES TO BE INSTALLED WITHIN THE R/W AND/OR PUE AREA.

NOTE:

A.) CALL USA TO FIELD VERIFY EXISTING TRENCH LOCATION(S).

B.) COORDINATE TIE IN WITH UTILITY COMPANY AS REQUIRED.

C.) HAND DIG TO EXPOSE ALL EXISTING FACILITIES.

LEGEND

———	D.T.I.S. SCH. 80 PVC OR RGS CONDUIT (SIZE & QUANTITY AS SHOWN)
D3	24"x36" D.T.I.S. SAN FRANCISCO COMM. (CHRISTY N40)
———	EX D.T.I.S. SCH. 80 PVC OR RGS CONDUIT (SIZE & QUANTITY AS SHOWN)
D3	EX 24"x36" D.T.I.S. SAN FRANCISCO COMM. (CHRISTY N40)
FA	FIRE ALARM PULL STATION
D.T.I.S.	DEPARTMENT OF TELECOMMUNICATIONS & INFORMATION SERVICES
RGS	RIGID GALVANIZED STEEL

REVIEWED AND ACCEPTED: DATE:

PRINT NAME: _____

SIGNED: _____

SCALE: 1" = 20'

POWER SYSTEMS DESIGN
PSD
2033 N. MAIN STREET, SUITE 200
WALNUT CREEK, CA 94596
TEL: 925-933-9445
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HUNTERS POINT PHASE II BUILDING 101 ARTISTS SUB-PHASE

DEPARTMENT OF TELECOMMUNICATIONS AND INFORMATION SERVICES SUBSTRUCTURE PLAN

CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design AV
Drawn AV
Approved AV
Job No PSD13-038

Drawing Number:
DT2.0
OF 2

Know what's **below.**
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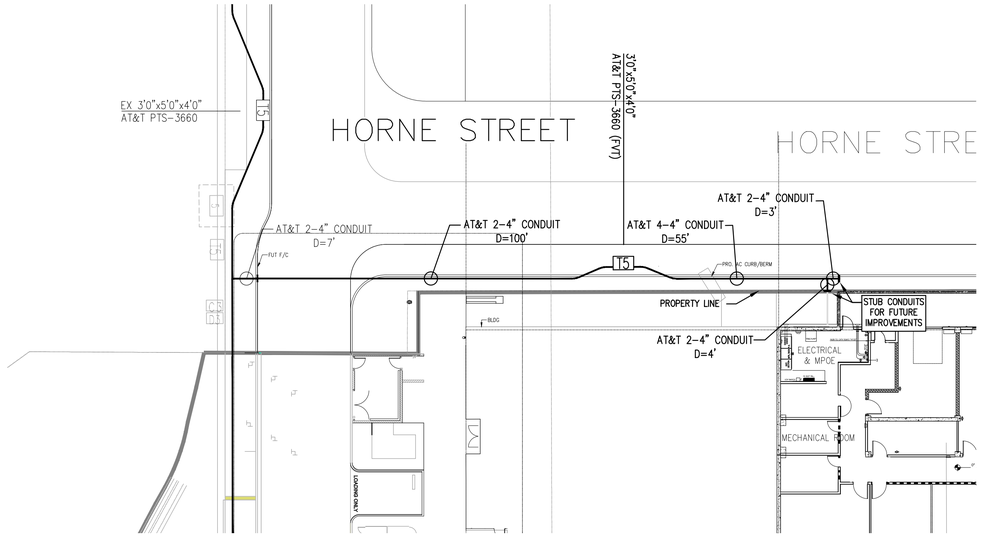

NOTE:
ALL BOXES TO BE INSTALLED WITHIN THE R/W AND/OR PUE AREA.

NOTE:

A.) CALL USA TO FIELD VERIFY EXISTING TRENCH LOCATION(S).

B.) COORDINATE TIE IN WITH UTILITY COMPANY AS REQUIRED.

C.) HAND DIG TO EXPOSE ALL EXISTING FACILITIES.

LEGEND

———	AT&T SCH. 40 PVC CONDUIT (SIZE & QUANTITY AS SHOWN)
T5	3'0"x5'0"x4'0" AT&T BOX PTS-3660 (U.O.N.)
———	EXISTING AT&T SCH. 40 PVC CONDUIT (SIZE & QUANTITY AS SHOWN)
T5	EXISTING 3'0"x5'0"x4'0" AT&T BOX PTS-3660 (U.O.N.)

DEPARTMENT OF PUBLIC WORKS
MASS GRADING, DEMOLITION, & UTILITY PHASE II PERMIT PLANS

REVIEWED AND ACCEPTED: DATE:

PRINT NAME: _____

SIGNED: _____

SCALE: 1" = 20'

POWER SYSTEMS DESIGN PSD
2033 N. MAIN STREET, SUITE 200
WALNUT CREEK, CA 94596
TEL: 925-933-8485
WWW.POWERSYSTEMSDESIGN.NET
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LENNAR URBAN

HUNTERS POINT PHASE II BUILDING 101 ARTISTS SUB-PHASE

AT&T
MASS GRADING, DEMO, & UTILITY PLANS

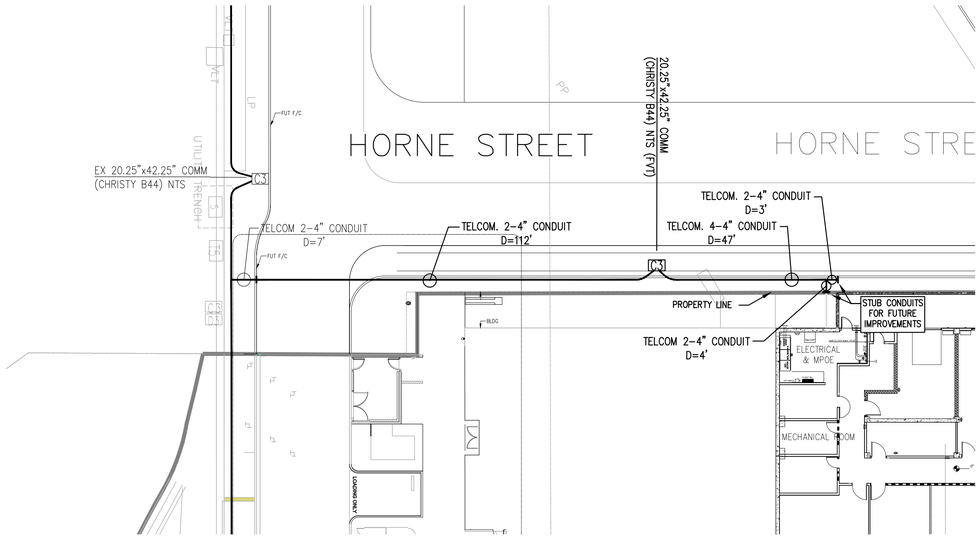
CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design AV
Drawn AV
Approved AV
Job No. PSD13-038

Drawing Number:
T1.0
OF 1

Know what's **below.**
Call 811 before you dig.



GENERAL NOTES:

1. ALL TELECOMMUNICATION VAULTS SHOULD BE CHRISTY B44 20.25"X42.25" WITH "TELECOMMUNICATIONS" INSIGNIA ON LID.
2. ALL TELECOMMUNICATIONS PVC CONDUIT TO BE SCHEDULE 40.
3. 4" CONDUIT TO BE USED AS SERVICE TO BUILDING MPOE ROOM. SERVICES TO SINGLE HOMES TO BE 2" CONDUIT.
4. MAXIMUM CONDUIT RUNS TO BE NO MORE THAN 400' BETWEEN TELECOMMUNICATIONS BOXES, AND NO MORE THAN 270° OF BENDS.
5. BOXES AND CONDUIT TO BE INSTALLED BY JOINT TRENCH CONTRACTOR.

NOTE:
ALL BOXES TO BE INSTALLED WITHIN THE R/W AND/OR PUE AREA.

NOTE:

A.) CALL USA TO FIELD VERIFY EXISTING TRENCH LOCATION(S).
B.) COORDINATE TIE IN WITH UTILITY COMPANY AS REQUIRED.
C.) HAND DIG TO EXPOSE ALL EXISTING FACILITIES.

LEGEND

———	TELCOM. SCH. 40 PVC CONDUIT (SIZE & QUANTITY AS SHOWN)
C3	20.25"x42.25" COMM (CHRISTY B44) NTS (U.O.N.)
———	EX CATV SCH. 40 PVC CONDUIT (SIZE & QUANTITY AS SHOWN)
EC3	EX 20.25"x42.25" COMM (CHRISTY B44) NTS (U.O.N.)

DEPARTMENT OF PUBLIC WORKS
MASS GRADING, DEMOLITION, &
UTILITY PHASE II PERMIT PLANS

REVIEWED AND ACCEPTED: DATE:

PRINT NAME: _____

SIGNED: _____

SCALE: 1" = 20'

POWER SYSTEMS DESIGN
PSD
2033 N. MAIN STREET, SUITE 200
WALNUT CREEK, CA 94596
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LENNAR URBAN

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II
TELECOMMUNICATIONS MASS GRADING, DEMO, & UTILITY PLANS
CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design AV
Drown AV
Approved AV
Job No PSD13-038

Drawing Number:
C1.0
OF 1

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811
Know what's below.
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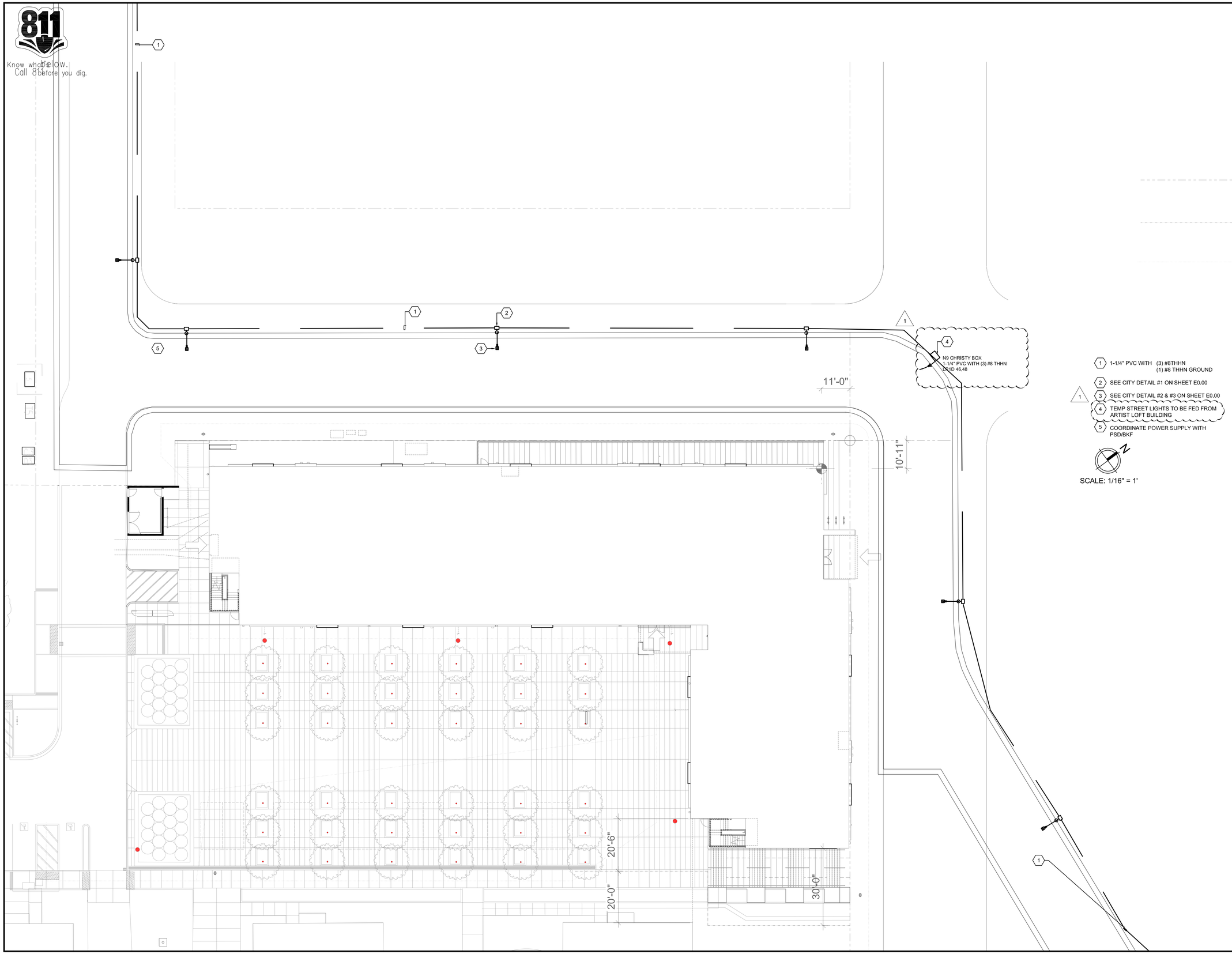

1. 1-1/4" PVC WITH (3) #8THHN (1) #8 THHN GROUND
2. SEE CITY DETAIL #1 ON SHEET E0.00
3. SEE CITY DETAIL #2 & #3 ON SHEET E0.00
4. TEMP STREET LIGHTS TO BE FED FROM ARTIST LOFT BUILDING
5. COORDINATE POWER SUPPLY WITH PSD/BKF

SCALE: 1/16" = 1'

BKF ENGINEERS/SURVEYORS/PLANNERS
255 SHORELINE DRIVE, STE 200
REDWOOD CITY, CA 94065
650/482-6300
650/482-6399 (FAX)

DesignElectric
Our Knowledge is Power

LICENSED CONTRACTOR
DESIGN ELECTRONICS INC
License Number C10-348215
Exp. 11-15-15
State of California

HUNTERS POINT PHASE II
BUILDING 101 ARTISTS SUB-PHASE

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS

CITY AND COUNTY OF SAN FRANCISCO
CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design PN
Drawn AB
Approved PN
Job No 20110162

Drawing Number:
E.0A

DRAWING NAME: P:_PROJECTS\2014\14-24 Artist's Lofts\DRAWINGS\DWG\E.0A TEMP CITY LIGHT PLAN - AB.dwg
PLOT DATE: 08-13-15 PLOTTED BY: Owner

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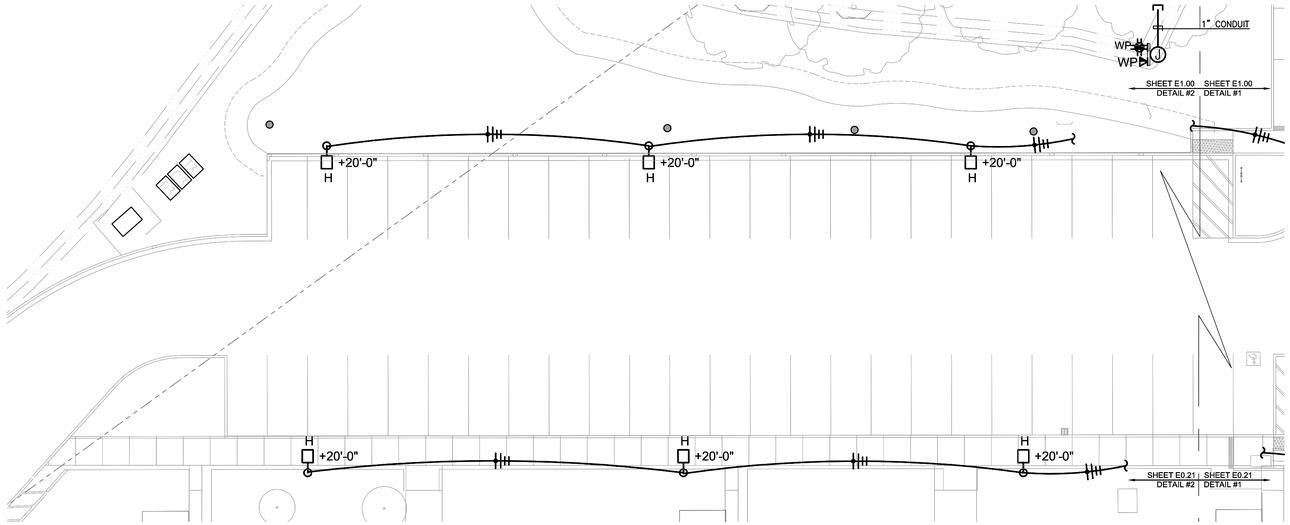
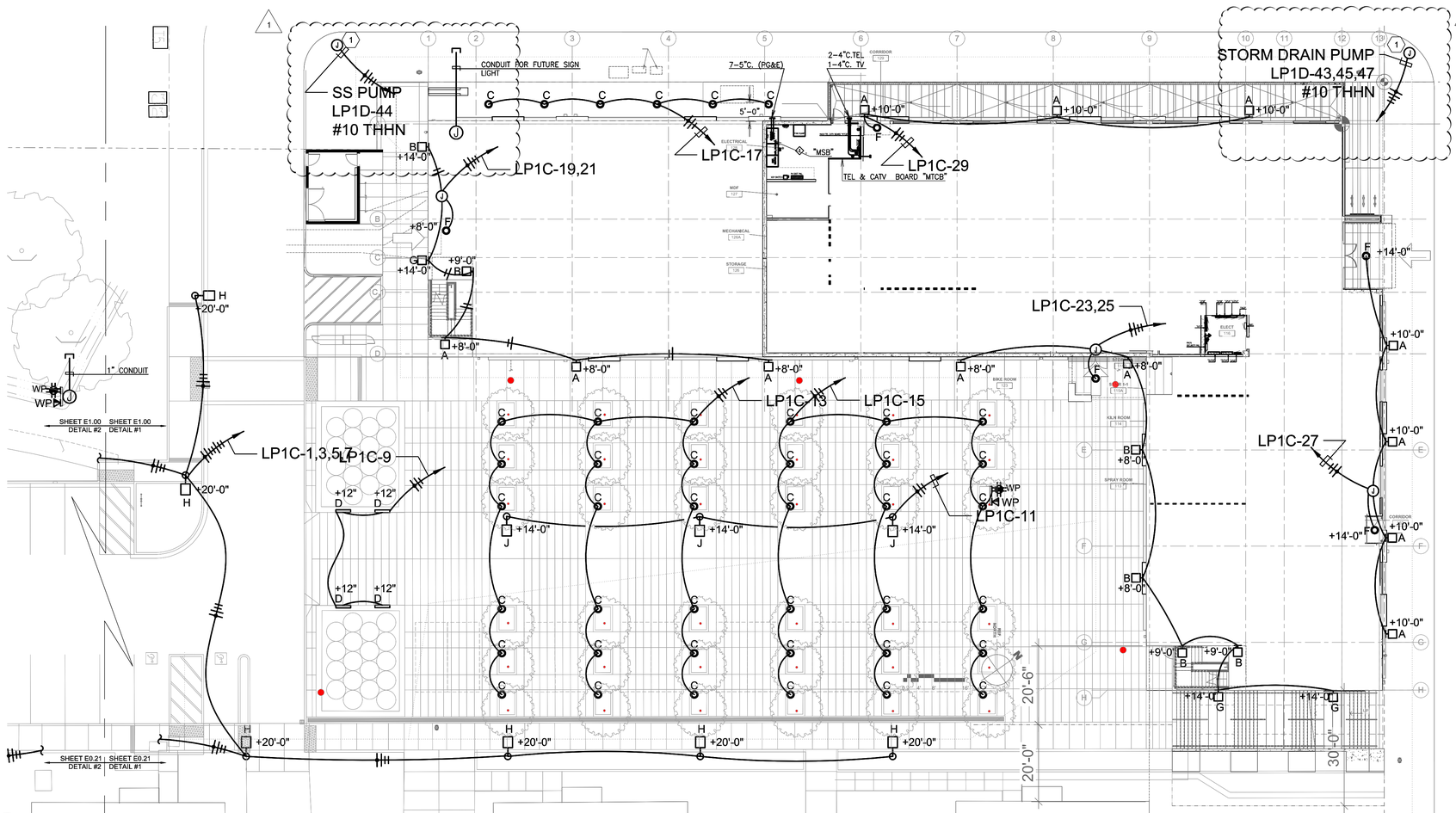
811 Know what's below. Call before you dig.



2 E.0B PARKING LOT 1/16" = 1'



1 E.0B SITE PLAN 1/16" = 1'

DRAWING NAME: P:_PROJECTS\2014\14-24 Artist's Lofts\DRAWINGS\DWG\E.0B ARTIST LOFT SITE - AB.dwg
PLOT DATE: 08-13-15 PLOTTED BY: Owner

BKF ENGINEERS/SURVEYORS/PLANNERS
255 SHORELINE DRIVE, STE 200
REDWOOD CITY, CA 94065
650/482-6300
650/482-6399 (FAX)

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LICENSED CONTRACTOR DESIGN ELECTRIC INC License Number C10-348215 Exp 11-15-16 State of California

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II
ARTISTS PARCEL MASS GRADING, DEMO, & UTILITY PLANS
CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design PN
Drawn AB
Approved PN
Job No 20110162

Drawing Number:
E.0B

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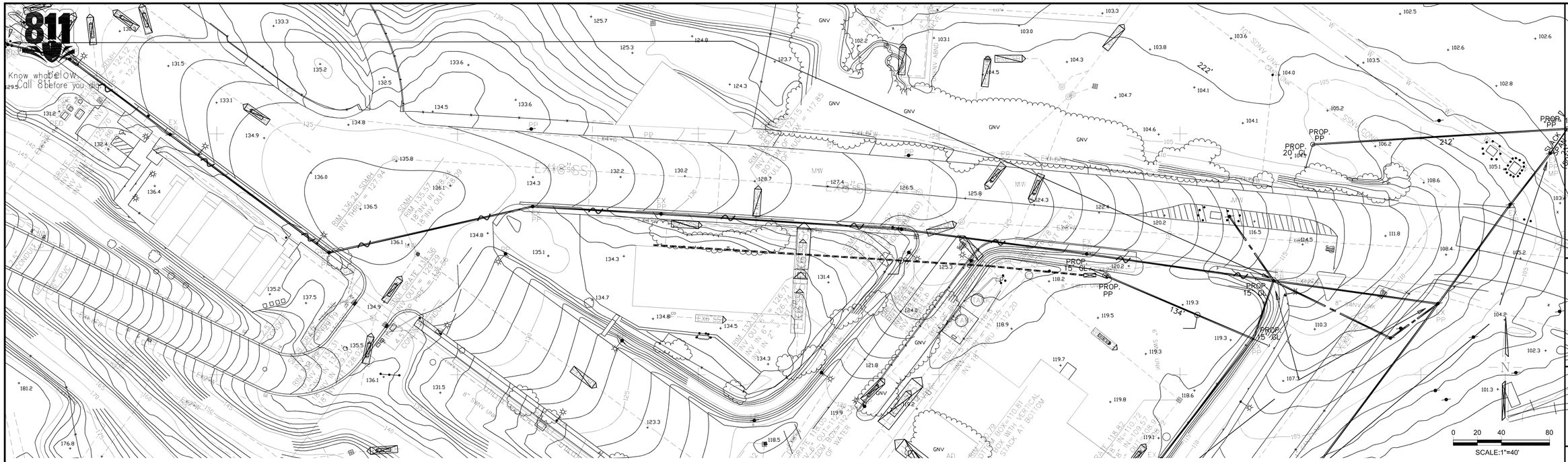
811
Know what's below.
Call before you dig.
PROP. PP
PROP. 20' GL
PROP. 15' GL
EXPOSSST
EXPOSSST
EXPOSSST
SSMH
RIM 135.54
18"INV IN 123.59
18"INV OUT
SSMH
RIM 135.51
18"INV IN 123.59
18"INV OUT
SSMH
RIM 136.24
INV THRU = 127.94
6" SDMW UNK
8" SDMW UNK
8" SDMW UNK
8

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Know what's below. Call 811 before you dig.

CATHODIC PROTECTION GENERAL NOTES:

1. THE CORROSION CONTROL SYSTEM CONSISTS OF FOUR LEVELS OF PROTECTION.

   A) ALL NEW PRESSURIZED (LPW & RCW) DUCTILE IRON PIPELINES SHALL BE ENCASED IN 8-MIL POLYETHYLENE IN ACCORDANCE WITH ANSI/AWWA SPECIFICATION C105/A21.5. COAT ALL BURIED BOLTS & NUTS FOR THE DUCTILE IRON PIPE WITH BITUMASTIC. ALL NEW LPW COPPER SERVICE PIPE BETWEEN THE METER AND THE BUILDING SHALL BE ENCASED IN 6-MIL POLYETHYLENE SLEEVING.

   B) THE LPW & RCW COPPER PIPELINES SHALL BE ELECTRICALLY ISOLATED PER CATHODIC PROTECTION GENERAL NOTE 3.

   C) ALL NEW, BURIED, LPW & RCW DUCTILE IRON PIPELINES SHALL BE CATHODICALLY PROTECTED WITH PREPACKAGED HIGH POTENTIAL MAGNESIUM ANODES & ELECTRICALLY ISOLATED PER CATHODIC PROTECTION GENERAL NOTES 2. & 3.

   D) ALL NEW, BURIED, LPW COPPER SERVICE PIPE BETWEEN THE WATER MAIN AND THE BLOW OFF/ARV/METER SHALL BE PRIMED, TAPE WRAPPED, CATHODICALLY PROTECTED WITH PREPACKAGED HIGH POTENTIAL MAGNESIUM ANODES & ELECTRICALLY ISOLATED PER CATHODIC PROTECTION GENERAL NOTE 3. THESE NEW LATERALS FROM THE WATER MAIN TO THE WATER METER SHALL BE PRIMED AND TAPE COATED WITH A MINIMUM OF 35MIL HALF-LAPPED PIPELINE TAPE SUCH AS POLYKEN 930 WITH 1027 PRIMER OR EQUAL. A CATHODIC PROTECTION SYSTEM USING MAGNESIUM ANODES SHALL BE INSTALLED ON ALL NEW DUCTILE IRON PIPELINES. CORROSION PROTECTION FOR THE WATER PIPELINES SHALL CONSIST OF 32-POUND HIGH POTENTIAL MAGNESIUM ANODES INSTALLED AT THE TEST STATION LOCATIONS SHOWN ON THE PLAN DRAWINGS.

   E) THE NEW LPW & RW WATER MAINS/LATERALS TO THE COMMERICAL KITCHEN SHALL BE CATHODICALLY PROTECTED BY OTHERS.

2. THE NUMBER OF ANODES PER ANODE TEST STATION (ATS) SHALL BE AS INDICATED ON THE PLAN DRAWINGS.

3. ALL LATERALS FOR LPW LINES SHALL BE ELECTRICALLY ISOLATED AT THE WATER MAIN AS WELL AS THE METER CONNECTION BY MEANS OF DIELECTRIC INSULATING FLANGES OR DIELECTRIC INSULATING UNIONS OR DIELECTRIC INSULATING CORPORATION STOPS.

4. ALL NON-WELDED, NON-INSULATING DUCTILE IRON PIPE JOINTS FOR THE NEW PIPELINES SHALL BE BONDED WITH ONE, #4 AWG/HMWPE INSULATED BOND CABLE PER JOINT, FOR ELECTRICAL CONTINUITY OF THE ENTIRE BURIED LENGTH OF THE NEW PIPELINES. FOR FIRE HYDRANTS AND OTHER LATERALS TO BUILDINGS USE ONE #8 AWG/HMWPE BOND CABLE PER JOINT.

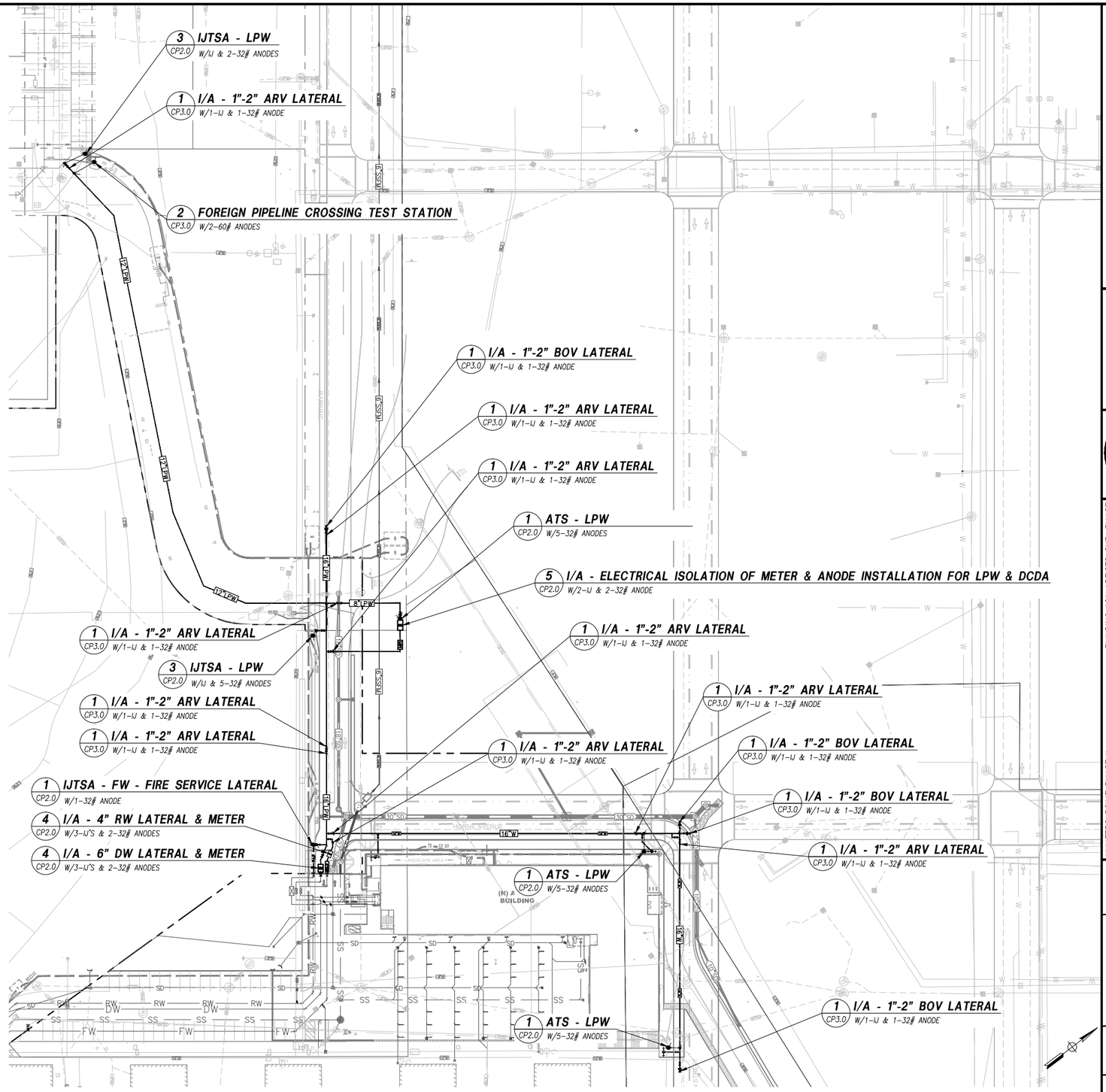
5. THE ATS – ANODE TEST STATIONS FOR THE LPW LINES SHALL BE INSTALLED ADJACENT TO FIRE HYDRANTS OR METER BOXES. THE CABLES FROM THE ANODES AS WELL AS THE PIPE SHALL BE INSTALLED IN 1" DIAMETER, SCH. 40 PVC CONDUIT WHICH SHALL BE RUN 1" OFF THE PIPE OR FIRE HYDRANT LATERAL.

6. THE IJTSA – TEST STATIONS FOR THE LPW LINES SHALL BE INSTALLED IN THE SIDEWALK. ALL CABLES SHALL BE INSTALLED IN 1" DIAMETER, SCHEDULE 40 PVC CONDUIT.

7. THE FPCTS – TEST STATIONS FOR THE LPW LINES THAT CROSS METALLIC NATURAL GAS PIPELINES SHALL BE INSTALLED IN THE SIDEWALK. ALL CABLES SHALL BE INSTALLED IN 1" DIAMETER, SCHEDULE 40 PVC CONDUIT. OMIT THE TEST STATION IF THE NATURAL GAS PIPELINE THAT IS CROSSED IS NONMETALLIC.

8. ALL FUTURE CONNECTIONS TO THE CAPPED UTILITIES INSTALLED DURING THIS PROJECT SHALL BE ELECTRICALLY ISOLATED FROM THE PIPELINES FOR THIS PROJECT.

9. PG&E IS RESPONSIBLE FOR THE THE CATHODIC PROTECTION OF ANY BURIED, METALLIC, NATURAL GAS PIPELINES UP TO THE GAS METER. BEYOND THE GAS METER THE CATHODIC PROTECTION OF ANY BURIED METALLIC NATURAL GAS PIPING IS RESPONSIBILITY OF THE INSTALLER, AND IS NOT COVERED BY THIS DESIGN.


3 CP2.0 IJTSA - LPW
W/IJ & 2-32# ANODES
1 CP3.0 I/A - 1"-2" ARV LATERAL
W/1-IJ & 1-32# ANODE
2 CP3.0 FOREIGN PIPELINE CROSSING TEST STATION
W/2-60# ANODES
1 CP3.0 I/A - 1"-2" BOV LATERAL
W/1-IJ & 1-32# ANODE
1 CP3.0 I/A - 1"-2" ARV LATERAL
W/1-IJ & 1-32# ANODE
1 CP3.0 I/A - 1"-2" ARV LATERAL
W/1-IJ & 1-32# ANODE
1 CP2.0 ATS - LPW
W/5-32# ANODES
5 CP2.0 I/A - ELECTRICAL ISOLATION OF METER & ANODE INSTALLATION FOR LPW & DCDA
W/2-IJ & 2-32# ANODE
1 CP3.0 I/A - 1"-2" ARV LATERAL
W/1-IJ & 1-32# ANODE
1 CP3.0 I/A - 1"-2" ARV LATERAL
W/1-IJ & 1-32# ANODE
3 CP2.0 IJTSA - LPW
W/IJ & 5-32# ANODES
1 CP3.0 I/A - 1"-2" ARV LATERAL
W/1-IJ & 1-32# ANODE
1 CP3.0 I/A - 1"-2" ARV LATERAL
W/1-IJ & 1-32# ANODE
1 CP3.0 I/A - 1"-2" ARV LATERAL
W/1-IJ & 1-32# ANODE
1 CP3.0 I/A - 1"-2" BOV LATERAL
W/1-IJ & 1-32# ANODE
1 CP2.0 IJTSA - FW - FIRE SERVICE LATERAL
W/1-32# ANODE
4 CP2.0 I/A - 4" RW LATERAL & METER
W/3-IJ'S & 2-32# ANODES
4 CP2.0 I/A - 6" DW LATERAL & METER
W/3-IJ'S & 2-32# ANODES
1 CP3.0 I/A - 1"-2" BOV LATERAL
W/1-IJ & 1-32# ANODE
1 CP2.0 ATS - LPW
W/5-32# ANODES
1 CP3.0 I/A - 1"-2" BOV LATERAL
W/1-IJ & 1-32# ANODE
12"-LPW
8"-LPW
16"-W
(N) A BUILDING

1 CP1.0 **CATHODIC PROTECTION SYSTEM SITE PLAN - DPW OFF-SITE (PUBLIC)**
SCALE: 1" = 40'

jdh corrosion consultants, inc.
1100 Willow Pass Court, Concord, CA 94520
Phone (925) 927-6630; www.jdhcorrosion.com

LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER
No. CR 1035
Exp. June 30, 2017
CORROSION
STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
CATHODIC PROTECTION SITE PLAN 1

CITY AND COUNTY OF SAN FRANCISCO, CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
CP1.0
OF

DRAWING NAME: H:\Project Folders\2014 Contracts\14045 – BKF Engineers– Hunters Pt P2 Artists Parcel\Design\CP Hunters Pt P2 Artist-DPW Rev8.1-CP1.0.dwg
PLOT DATE: 08-10-15 PLOTTED BY: therink

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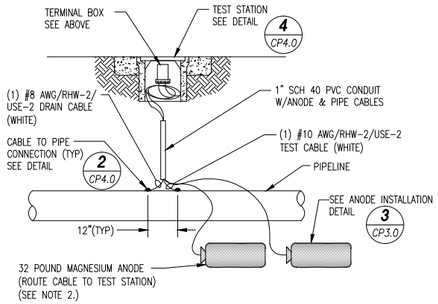
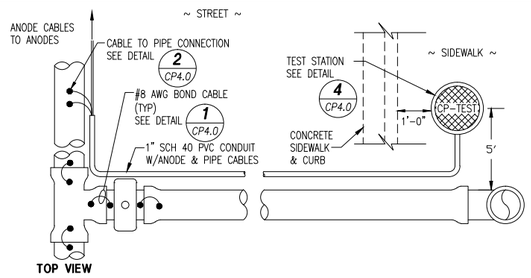
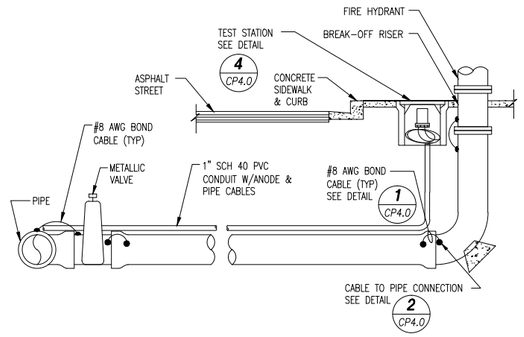

TERMINAL BOX SEE ABOVE
TEST STATION SEE DETAIL 4 CP4.0
(1) #8 AWG/RHW-2/ USE-2 DRAIN CABLE (WHITE)
1" SCH 40 PVC CONDUIT W/ANODE & PIPE CABLES
(1) #10 AWG/RHW-2/USE-2 TEST CABLE (WHITE)
CABLE TO PIPE CONNECTION (TYP) SEE DETAIL 2 CP4.0
PIPELINE
SEE ANODE INSTALLATION DETAIL 3 CP3.0
12"(TYP)
32 POUND MAGNESIUM ANODE (ROUTE CABLE TO TEST STATION) (SEE NOTE 2.)

NOTES:
1. USE COPPER SHORTING STRAPS AS NECESSARY TO BOND ANODES TOGETHER.
2. SEE PLAN DRAWING CP1.0 FOR NUMBER OF ANODES PER TEST STATION.
3. INSTALL ALL CABLES IN CONDUIT.

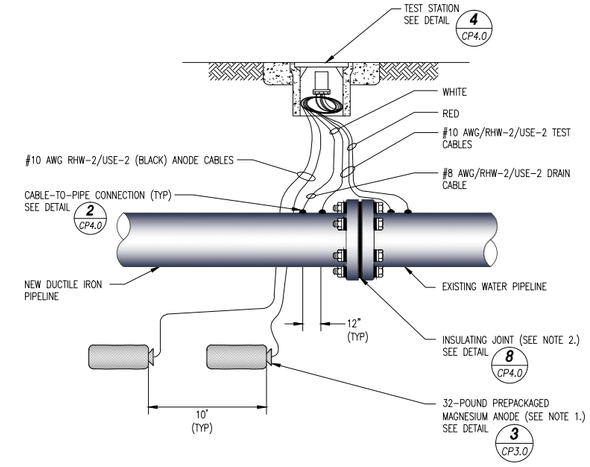
1 CP2.0 ATS - ANODE TEST STATION
NOT TO SCALE


~ STREET ~
~ SIDEWALK ~
ANODE CABLES TO ANODES
CABLE TO PIPE CONNECTION SEE DETAIL 2 CP4.0
#8 AWG BOND CABLE (TYP) SEE DETAIL 1 CP4.0
1" SCH 40 PVC CONDUIT W/ANODE & PIPE CABLES
TEST STATION SEE DETAIL 4 CP4.0
CONCRETE SIDEWALK & CURB
CP-TEST
1'-0"
5'
TOP VIEW


FIRE HYDRANT
TEST STATION SEE DETAIL 4 CP4.0
BREAK-OFF RISER
ASPHALT STREET
CONCRETE SIDEWALK & CURB
#8 AWG BOND CABLE (TYP)
METALLIC VALVE
1" SCH 40 PVC CONDUIT W/ANODE & PIPE CABLES
#8 AWG BOND CABLE (TYP) SEE DETAIL 1 CP4.0
PIPE
CABLE TO PIPE CONNECTION SEE DETAIL 2 CP4.0

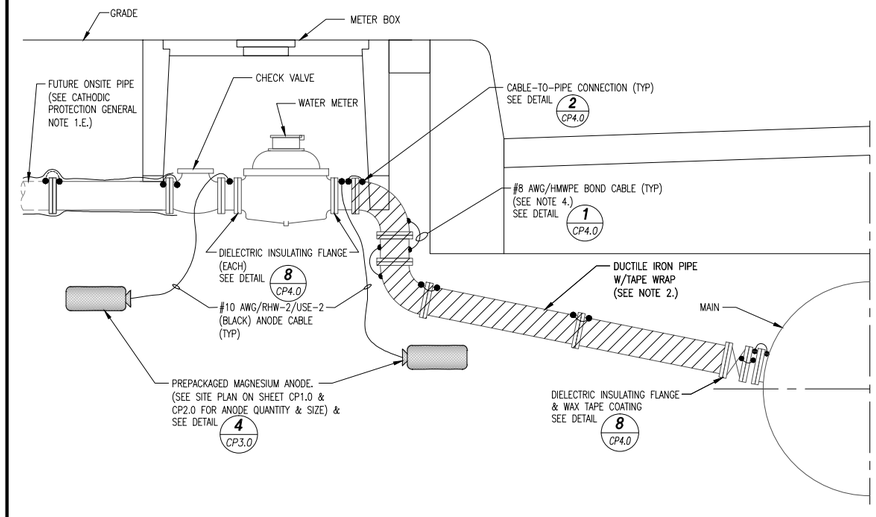
NOTES:
1. FOR LPW LINES INSTALL ALL TEST STATIONS ADJACENT TO FIRE HYDRANTS.
2. FOR RW LINES WITH NO FIRE HYDRANTS INSTALL TEST STATIONS IN SIDEWALK ABOVE SERVICE LATERALS.

2 CP2.0 ATS INSTALLATION ADJACENT TO FIRE HYDRANT
NOT TO SCALE


TEST STATION SEE DETAIL 4 CP4.0
WHITE
RED
#10 AWG/RHW-2/USE-2 TEST CABLES
#10 AWG RHW-2/USE-2 (BLACK) ANODE CABLES
#8 AWG/RHW-2/USE-2 DRAIN CABLE
CABLE-TO-PIPE CONNECTION (TYP) SEE DETAIL 2 CP4.0
NEW DUCTILE IRON PIPELINE
EXISTING WATER PIPELINE
12" (TYP)
INSULATING JOINT (SEE NOTE 2.) SEE DETAIL 8 CP4.0
10' (TYP)
32-POUND PREPACKAGED MAGNESIUM ANODE (SEE NOTE 1.) SEE DETAIL 3 CP3.0

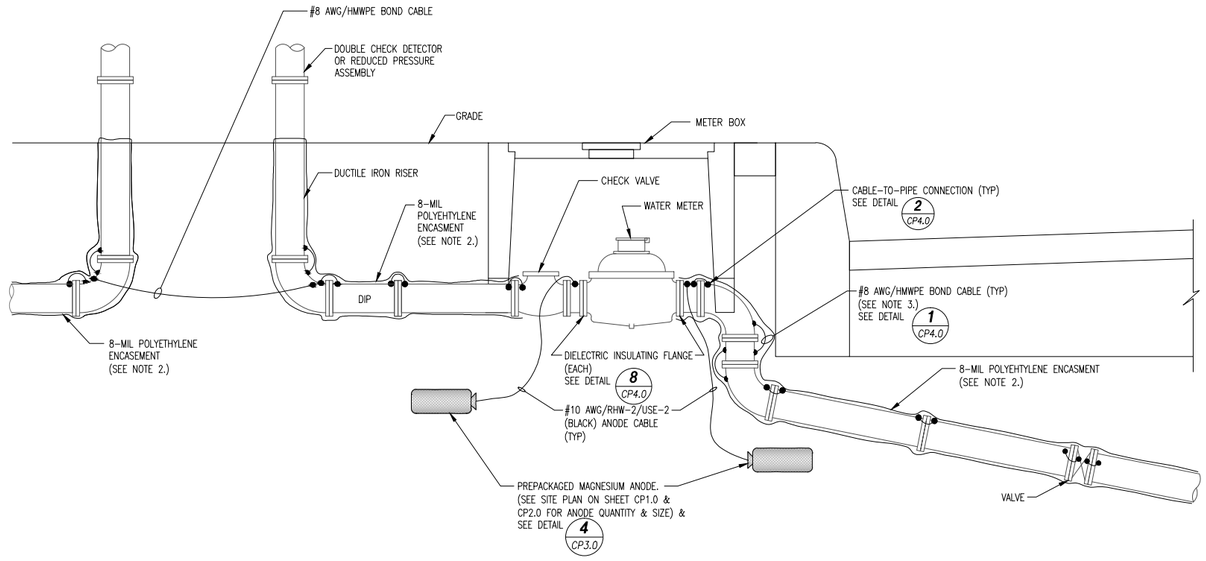
NOTES:
1. INSTALL THE NUMBER OF 32-POUND PREPACKAGED MAGNESIUM ANODES AT THE IJTSA AS SHOWN IN THE PLAN DRAWING ON CP1.0.
2. BELOW GRADE INSULATING JOINT COATING NOT SHOWN FOR CLARITY. SEE DETAIL 8/CP4.0.
3. POLYETHYLENE ENCASEMENT NOT SHOWN FOR CLARITY. SEE CATHODIC PROTECTION GENERAL NOTE 1.A. ON SHEET CP1.0.

3 CP2.0 IJTSA - INSULATING JOINT TEST STATION W/ANODES
NOT TO SCALE


GRADE
METER BOX
FUTURE ONSITE PIPE (SEE CATHODIC PROTECTION GENERAL NOTE 1.E.)
CHECK VALVE
WATER METER
CABLE-TO-PIPE CONNECTION (TYP) SEE DETAIL 2 CP4.0
#8 AWG/HMWPE BOND CABLE (TYP) (SEE NOTE 4.) SEE DETAIL 1 CP4.0
DIELECTRIC INSULATING FLANGE (EACH) SEE DETAIL 8 CP4.0
DUCTILE IRON PIPE W/TAPE WRAP (SEE NOTE 2.)
#10 AWG/RHW-2/USE-2 (BLACK) ANODE CABLE (TYP)
MAIN
PREPACKAGED MAGNESIUM ANODE. (SEE SITE PLAN ON SHEET CP1.0 & CP2.0 FOR ANODE QUANTITY & SIZE) & SEE DETAIL 4 CP3.0
DIELECTRIC INSULATING FLANGE & WAX TAPE COATING SEE DETAIL 8 CP4.0

NOTES:
1. COAT ALL BURIED BOLTS & NUTS WITH BITUMASTIC PER CORROSION CONTROL GENERAL NOTE 1.A. ON SHEET CP1.0.
2. THE DUCTILE IRON PIPE SHALL BE ENCASED IN 8-MIL POLYETHYLENE. AS AN ALTERNATIVE FOR DUCTILE IRON PIPE BEYOND THE METER, TAPE WRAP AND PRIMER MAY BE USED INSTEAD OF POLYETHYLENE ENCASEMENT.
3. INSTALL BOND CABLES PER CATHODIC PROTECTION GENERAL NOTE 4. ON SHEET CP1.0. THE LENGTH OF THE BOND CABLES BETWEEN FITTINGS SHALL BE OF SUFFICIENT LENGTH TO ALLOW FOR SIGNIFICANT SOIL SUBSIDENCE AND PIPE MOVEMENT.
4. ENSURE ELECTRICAL ISOLATION OF ANY METER BYPASS PIPING BY INSTALLING AN INSULATING TYPE FLANGE, INSULATING UNION, OR CORPORATION STOP AT THE DOWNSTREAM CONNECTION TO THE SERVICE.

4 CP2.0 I/A - ELECTRICAL ISOLATION OF MAIN, METER, & DUCTILE IRON SERVICE LATERAL, & ANODE INSTALLATION
NOT TO SCALE


#8 AWG/HMWPE BOND CABLE
DOUBLE CHECK DETECTOR OR REDUCED PRESSURE ASSEMBLY
GRADE
METER BOX
DUCTILE IRON RISER
8-MIL POLYEHTYLENE ENCASMENT (SEE NOTE 2.)
CHECK VALVE
WATER METER
CABLE-TO-PIPE CONNECTION (TYP) SEE DETAIL 2 CP4.0
DIP
#8 AWG/HMWPE BOND CABLE (TYP) (SEE NOTE 3.) SEE DETAIL 1 CP4.0
8-MIL POLYETHYLENE ENCASEMENT (SEE NOTE 2.)
DIELECTRIC INSULATING FLANGE (EACH) SEE DETAIL 8 CP4.0
#10 AWG/RHW-2/USE-2 (BLACK) ANODE CABLE (TYP)
8-MIL POLYETHYLENE ENCASEMENT (SEE NOTE 2.)
PREPACKAGED MAGNESIUM ANODE. (SEE SITE PLAN ON SHEET CP1.0 & CP2.0 FOR ANODE QUANTITY & SIZE) & SEE DETAIL 4 CP3.0
VALVE

NOTES:
1. COAT ALL BURIED BOLTS & NUTS WITH BITUMASTIC PER CORROSION CONTROL GENERAL NOTE 1.A. ON SHEET CP1.0.
2. THE DUCTILE IRON PIPE SHALL BE ENCASED IN 8-MIL POLYETHYLENE. AS AN ALTERNATIVE FOR DUCTILE IRON PIPE BEYOND THE METER, TAPE WRAP AND PRIMER MAY BE USED INSTEAD OF POLYETHYLENE ENCASEMENT.
3. INSTALL BOND CABLES PER CATHODIC PROTECTION GENERAL NOTE 4. ON SHEET CP1.0. THE LENGTH OF THE BOND CABLES BETWEEN FITTINGS SHALL BE OF SUFFICIENT LENGTH TO ALLOW FOR SIGNIFICANT SOIL SUBSIDENCE AND PIPE MOVEMENT.
4. ENSURE ELECTRICAL ISOLATION OF ANY METER BYPASS PIPING BY INSTALLING AN INSULATING TYPE FLANGE, INSULATING UNION, OR CORPORATION STOP AT THE DOWNSTREAM CONNECTION TO THE SERVICE.

5 CP2.0 I/A - ELECTRICAL ISOLATION OF METER AND ANODE INSTALLATION FOR CITY LATERAL/MAIN & DCDA
NOT TO SCALE

jdh corrosion consultants, inc.
1100 Willow Pass Court, Concord, CA 94520
Phone (925) 927-6630; www.jdhcorrosion.com

LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER — No. CR 1035 (Exp. June 30, 2017) — CORROSION — STATE OF CALIFORNIA

HUNTERS POINT PHASE II — BUILDING 101 ARTISTS SUB-PHASE

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
CATHODIC PROTECTION DETAILS 1

CITY AND COUNTY OF SAN FRANCISCO — CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number:
CP2.0
OF

DRAWING NAME: C:\Users\therink\appdata\local\temp\AcPublish_2724\CP Hunters Pt P2 Artist-DPW Rev8.1.dwg
PLOT DATE: 08-10-15 PLOTTED BY: therink

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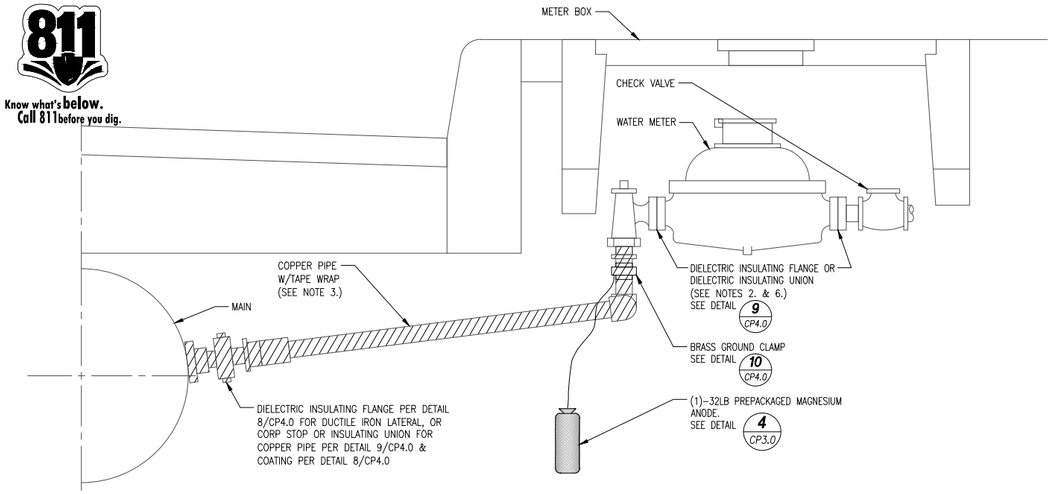
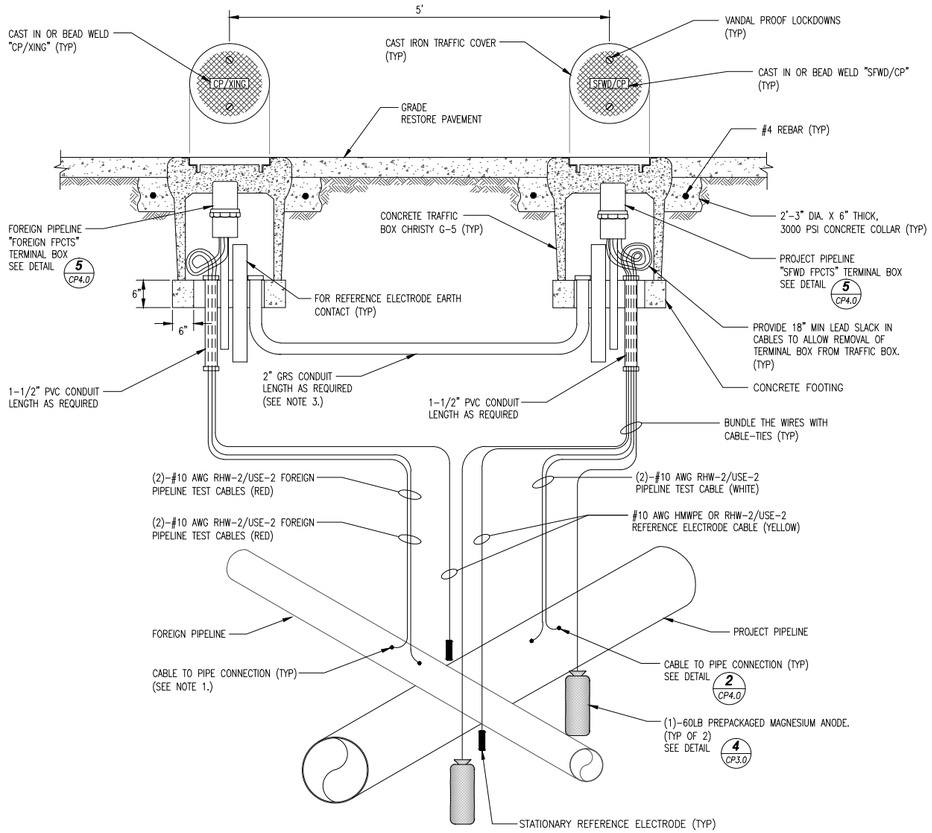
Know what's below. Call 811 before you dig.


METER BOX
CHECK VALVE
WATER METER
COPPER PIPE W/TAPE WRAP (SEE NOTE 3.)
MAIN
DIELECTRIC INSULATING FLANGE OR DIELECTRIC INSULATING UNION (SEE NOTES 2. & 6.) SEE DETAIL 9 CP4.0
BRASS GROUND CLAMP SEE DETAIL 10 CP4.0
DIELECTRIC INSULATING FLANGE PER DETAIL 8/CP4.0 FOR DUCTILE IRON LATERAL, OR CORP STOP OR INSULATING UNION FOR COPPER PIPE PER DETAIL 9/CP4.0 & COATING PER DETAIL 8/CP4.0
(1)-32LB PREPACKAGED MAGNESIUM ANODE. SEE DETAIL 4 CP3.0

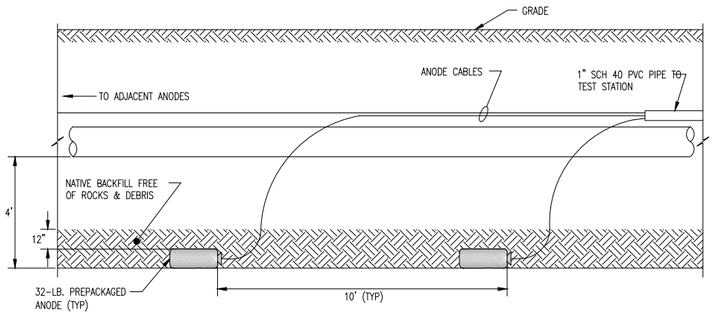
NOTE:
1. USE ALL BRASS BODY INSULATING UNION OR WATER METER WITH INSULATING ADAPTERS ON COPPER PIPE.
2. USE INSULATING FLANGE KIT FOR METER WITH FLANGE CONNECTION. USE DIELECTRIC UNION FOR SCREW-IN METER CONNECTION.
3. THE BURIED COPPER FROM THE MAIN TO THE METER SHALL BE TAPE COATED WITH A LAYER OF PRIMED HALF-LAPPED TAPE COATING; THE MINIMUM 35MIL THICK TAPE COATING SHALL POLYKEN 930 WITH 1027 PRIMER OR EQUAL.
4. THE BURIED COPPER LATERAL BEYOND THE METER SHALL BE ENCASED IN A POLYETHYLENE SLEEVE. AS AN ALTERNATIVE FOR COPPER PIPE BEYOND THE METER, TAPE WRAP AND PRIMER MAY BE USED INSTEAD OF POLYETHYLENE ENCASEMENT.
5. ENSURE ELECTRICAL ISOLATION OF ANY METER BYPASS PIPING BY INSTALLING AN INSULATING TYPE FLANGE, INSULATING UNION, OR CORPORATION STOP AT THE DOWNSTREAM CONNECTION TO THE SERVICE.
6. FOR BLOW OFF OR ARV INSTALL INSULATING CORP STOP OR INSULATING UNION AT CONNECTION OF COPPER LATERAL TO DUCTILE IRON MAIN, TAPE WRAP COPPER LATERAL, AND INSTALL ANODE ON COPPER LATERAL AS SHOWN.

1 CP3.0 I/A - ELECTRICAL ISOLATION OF MAIN, METER, & COPPER LATERAL AND ANODE INSTALLATION FOR COPPER LATERAL
NOT TO SCALE

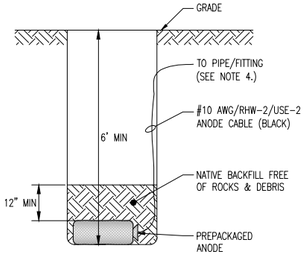

5'
CAST IN OR BEAD WELD "CP/XING" (TYP)
CAST IRON TRAFFIC COVER (TYP)
VANDAL PROOF LOCKDOWNS (TYP)
CAST IN OR BEAD WELD "SFWD/CP" (TYP)
CP/XING
SFWD/CP
GRADE RESTORE PAVEMENT
#4 REBAR (TYP)
FOREIGN PIPELINE "FOREIGN FPCTS" TERMINAL BOX SEE DETAIL 5 CP4.0
CONCRETE TRAFFIC BOX CHRISTY G-5 (TYP)
2'-3" DIA. X 6" THICK, 3000 PSI CONCRETE COLLAR (TYP)
PROJECT PIPELINE "SFWD FPCTS" TERMINAL BOX SEE DETAIL 5 CP4.0
6"
4"
FOR REFERENCE ELECTRODE EARTH CONTACT (TYP)
PROVIDE 18" MIN LEAD SLACK IN CABLES TO ALLOW REMOVAL OF TERMINAL BOX FROM TRAFFIC BOX. (TYP)
1-1/2" PVC CONDUIT LENGTH AS REQUIRED
2" GRS CONDUIT LENGTH AS REQUIRED (SEE NOTE 3.)
1-1/2" PVC CONDUIT LENGTH AS REQUIRED
CONCRETE FOOTING
BUNDLE THE WIRES WITH CABLE-TIES (TYP)
(2)-#10 AWG RHW-2/USE-2 FOREIGN PIPELINE TEST CABLES (RED)
(2)-#10 AWG RHW-2/USE-2 PIPELINE TEST CABLE (WHITE)
(2)-#10 AWG RHW-2/USE-2 FOREIGN PIPELINE TEST CABLES (RED)
#10 AWG HMWPE OR RHW-2/USE-2 REFERENCE ELECTRODE CABLE (YELLOW)
FOREIGN PIPELINE
PROJECT PIPELINE
CABLE TO PIPE CONNECTION (TYP) (SEE NOTE 1.)
CABLE TO PIPE CONNECTION (TYP) SEE DETAIL 2 CP4.0
(1)-60LB PREPACKAGED MAGNESIUM ANODE. (TYP OF 2) SEE DETAIL 4 CP3.0
STATIONARY REFERENCE ELECTRODE (TYP)

NOTES:
1. COORDINATE WITH FOREIGN UTILITY OWNER FOR THE FOREIGN UTILITY OWNER TO CADWELD TEST LEADS TO THE FOREIGN PIPELINE. PG&E SHALL ADDITIONALLY INSTALL ITS OWN PG&E TYPE C ELECTROLYSIS TEST STATION AT EACH METALLIC PG&E PIPELINE CROSSING BY THE LPW & RW PIPELINES AT THE DISCRETION OF PG&E. THE CONTRACTOR'S RESPONSIBILITY ASSOCIATED WITH THE INSTALLATION OF PG&E TYPE C, ELECTROLYSIS TEST STATION WILL BE TO COORDINATE WITH PG&E, AND TO EXCAVATE & PROVIDE ACCESS TO A SUFFICIENT PORTION OF THE PG&E PIPELINE IN ORDER TO ALLOW THE PG&E PIPELINE PERSONNEL TO MAKE CABLE CONNECTIONS TO THE PG&E PIPELINE & TO THE PROJECT PIPELINE. EXCAVATION WORK BY THE CONTRACTOR SHALL BE SUBSTANTIALLY LIMITED TO THE CONFINES OF THE CITY'S PIPELINE TRENCH, THE CABLE RUN TO THE TEST STATION, & THE LOCATION OF THE TEST STATION IN THE SIDEWALK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION & SCHEDULING WITH PG&E, & NOTIFICATION OF PG&E PIPELINE OPERATORS 72 HOURS PRIOR TO EXCAVATION OF THE PG&E PIPELINE.
2. ALL CABLE CARRYING CONDUITS SHALL HAVE BUSHING AT EACH END.
3. THIS CONDUIT IS FOR FUTURE CATHODIC PROTECTION INTERFERENCE MITIGATION OF THE TWO PIPELINES AT THE CROSSING. INSTALL 4-#10 AWG WIRES WITH COLORS AS FOLLOWS: WHITE, BLACK, RED AND BLUE. WIRE SHALL EXTEND 2' BEYOND EACH END OF THE CONDUIT.
4. INSTALL THE REFERENCE CELLS 6-INCHES FROM THE PIPELINE.
5. INSTALL INSULATING BLANKET PER DETAIL 5/CP3.0.

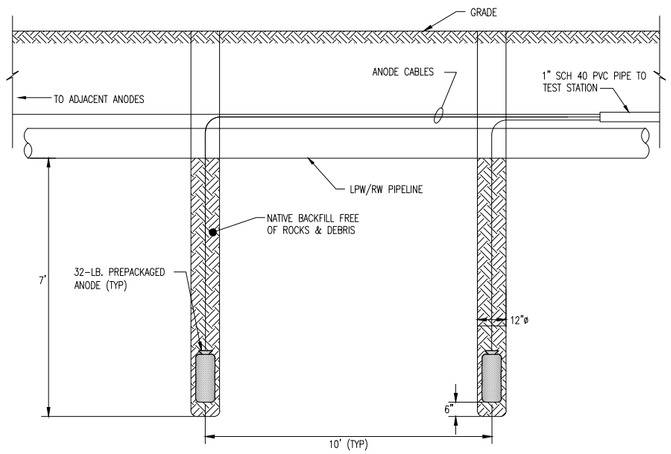
2 CP3.0 FOREIGN PIPELINE CROSSING TEST STATION
NOT TO SCALE



HORIZONTAL INSTALLATION



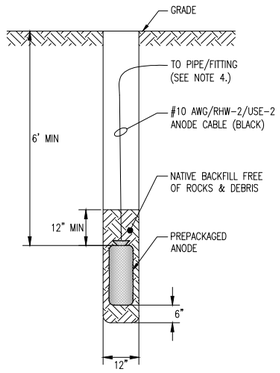
HORIZONTAL INSTALLATION



VERTICAL INSTALLATION

NOTES:
1. NUMBER OF ANODES AS INDICATED ON PLAN SHEETS.
2. INSTALL ANODES DIRECTLY UNDER THE PIPE.
3. THE ANODES MAY BE INSTALLED HORIZONTALLY OR VERTICALLY UPON DISCRETION OF THE CONTRACTOR.

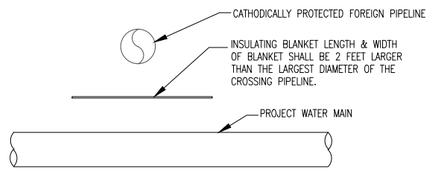
3 CP3.0 PROFILE - MULTIPLE ANODE INSTALLATION
NOT TO SCALE



VERTICAL INSTALLATION

NOTES:
1. INSTALL ANODES 3 FEET OFF THE PIPE/FITTING IN NATIVE SOIL.
2. THE ANODES MAY BE INSTALLED HORIZONTALLY OR VERTICALLY UPON DISCRETION OF THE CONTRACTOR.
3. MAINTAIN A MIN. DISTANCE OF 10 FEET BETWEEN ANODES IF MULTIPLE ANODES ARE INSTALLED.
4. CONNECT ANODE CABLE TO TEST STATION OR DIRECTLY TO PIPE OR FITTING AS SHOWN IN THE DRAWINGS.

4 CP3.0 PROFILE - ANODE INSTALLATION
NOT TO SCALE


CATHODICALLY PROTECTED FOREIGN PIPELINE
INSULATING BLANKET LENGTH & WIDTH OF BLANKET SHALL BE 2 FEET LARGER THAN THE LARGEST DIAMETER OF THE CROSSING PIPELINE.
PROJECT WATER MAIN

NOTES:
1. DIELECTRIC BLANKET SHALL BE 1/8" THICK SHEET OF BUTYL RUBBER, PVC, HDPE OR NEOPRENE.
2. DIELECTRIC BLANKET SHALL BE INSTALLED AS CLOSE TO THE MIDPOINT BETWEEN THE TWO LINES AS POSSIBLE.
4. AT LOCATIONS WHERE A REFERENCE ELECTRODE IS INSTALLED BETWEEN THE TWO PIPES, POSITION THE REFERENCE ELECTRODE SHALL BE A MAXIMUM OF 6 INCHES FROM THE PIPE OR MIDWAY BETWEEN THE INSULATING BLANKET AND THE PROJECT PIPE. INSTALL THE REFERENCE ELECTRODE FOR THE SFWD TEST STATION BETWEEN THE INSULATING BLANKET AND THE SFWD PIPE. INSTALL THE REFERENCE ELECTRODE FOR THE FOREIGN PIPELINE TEST STATION BETWEEN THE INSULATING BLANKET AND THE FOREIGN PIPE.

5 CP3.0 INSULATING BLANKET
NOT TO SCALE

jdh corrosion consultants, inc.
1100 Willow Pass Court, Concord, CA 94520
Phone (925) 927-6630; www.jdhcorrosion.com

LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER — No. CR 1035 (Exp. June 30, 2017) — CORROSION — STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
CATHODIC PROTECTION DETAILS 2

CITY AND COUNTY OF SAN FRANCISCO CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design LW
Drawn KC
Approved CH
Job No 20110162

Drawing Number: CP3.0

OF

DRAWING NAME: C:\Users\therink\appdata\local\temp\AcPublish_2724\CP Hunters Pt P2 Artist-DPW Rev8.1.dwg
PLOT DATE: 08-10-15 PLOTTED BY: therink

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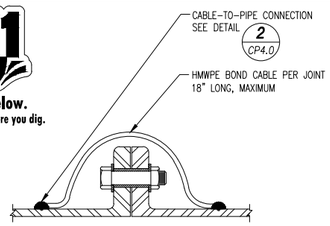
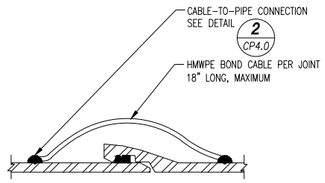


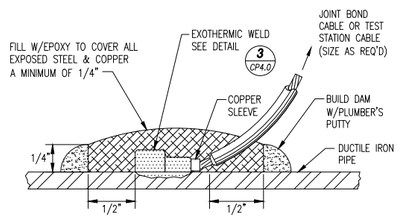
FLANGED JOINT



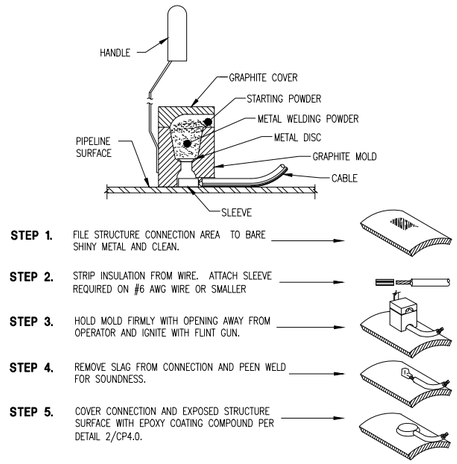
PUSH-ON JOINT

NOTES:
1. SEE CATHODIC PROTECTION GENERAL NOTE 4 ON SHEET CP1.0 FOR JOINT BOND CABLE SIZES.
2. PROVIDE ENOUGH SLACK IN THE BOND CABLES FOR JOINT MOVEMENT.

1 CP4.0 BOND CABLES - DUCTILE IRON PIPE JOINTS
NOT TO SCALE

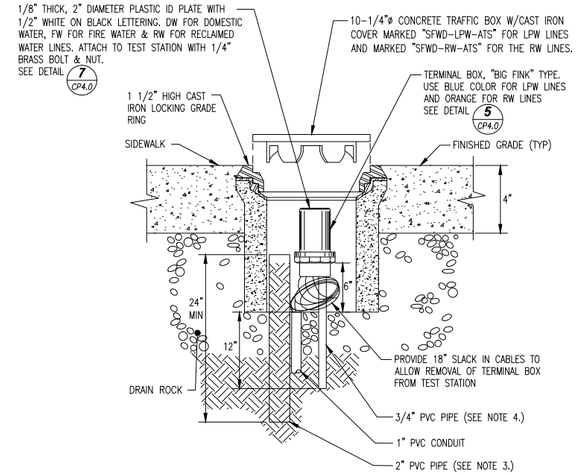

FILL W/EPOXY TO COVER ALL EXPOSED STEEL & COPPER A MINIMUM OF 1/4"
EXOTHERMIC WELD SEE DETAIL 3 CP4.0
JOINT BOND CABLE OR TEST STATION CABLE (SIZE AS REQ'D)
COPPER SLEEVE
BUILD DAM W/PLUMBER'S PUTTY
DUCTILE IRON PIPE
1/4"
1/2"
1/2"

2 CP4.0 CABLE-TO-PIPE CONNECTION
NOT TO SCALE


HANDLE
GRAPHITE COVER
STARTING POWDER
METAL WELDING POWDER
METAL DISC
GRAPHITE MOLD
CABLE
PIPELINE SURFACE
SLEEVE
STEP 1. FILE STRUCTURE CONNECTION AREA TO BARE SHINY METAL AND CLEAN.
STEP 2. STRIP INSULATION FROM WIRE. ATTACH SLEEVE REQUIRED ON #6 AWG WIRE OR SMALLER
STEP 3. HOLD MOLD FIRMLY WITH OPENING AWAY FROM OPERATOR AND IGNITE WITH FLINT GUN.
STEP 4. REMOVE SLAG FROM CONNECTION AND PEEN WELD FOR SOUNDNESS.
STEP 5. COVER CONNECTION AND EXPOSED STRUCTURE SURFACE WITH EPOXY COATING COMPOUND PER DETAIL 2/CP4.0.

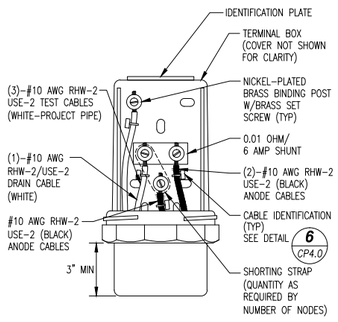
NOTE:
PROCEDURE SHOWN ABOVE IS TO BE USED AS A GENERAL GUIDE ONLY. CONSULT MANUFACTURER'S LITERATURE FOR SPECIFIC INSTALLATION INSTRUCTIONS.

3 CP4.0 EXOTHERMIC WELD PROCEDURE
NOT TO SCALE

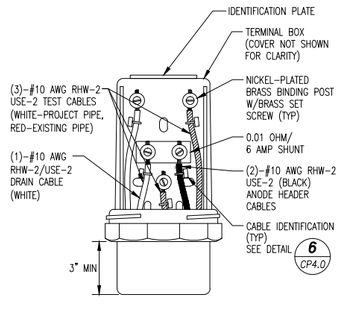

1/8" THICK, 2" DIAMETER PLASTIC ID PLATE WITH 1/2" WHITE ON BLACK LETTERING. DW FOR DOMESTIC WATER, FW FOR FIRE WATER & RW FOR RECLAIMED WATER LINES. ATTACH TO TEST STATION WITH 1/4" BRASS BOLT & NUT. SEE DETAIL 7 CP4.0
10-1/4"ø CONCRETE TRAFFIC BOX W/CAST IRON COVER MARKED "SFWD-LPW-ATS" FOR LPW LINES AND MARKED "SFWD-RW-ATS" FOR THE RW LINES.
TERMINAL BOX, "BIG FINK" TYPE. USE BLUE COLOR FOR LPW LINES AND ORANGE FOR RW LINES SEE DETAIL 5 CP4.0
1 1/2" HIGH CAST IRON LOCKING GRADE RING
SIDEWALK
FINISHED GRADE (TYP)
4"
6"
24" MIN
12"
DRAIN ROCK
PROVIDE 18" SLACK IN CABLES TO ALLOW REMOVAL OF TERMINAL BOX FROM TEST STATION
3/4" PVC PIPE (SEE NOTE 4.)
1" PVC CONDUIT
2" PVC PIPE (SEE NOTE 3.)

NOTES:
1. IDENTIFY ALL CABLES PER DETAIL 6, SHEET CP4.0.
2. INSTALL TEST STATION IN SIDEWALK.
3. INSTALL 2" PVC PIPE IN CLEAN NATIVE SOIL. FILL PIPE WITH CLEAN SOIL, FREE FROM ROCKS & DEBRIS.
4. INSTALL 18" LENGTH OF 3/ 4" PVC PIPE TO ENSURE THAT THE TERMINAL BOX WILL REMAIN IN THE UPRIGHT POSITION. POSITION THE PIPE SO THAT THE TERMINAL BOX WILL BE AS HIGH AS POSSIBLE WITH THE CAST IRON LID STILL CLOSING PROPERLY.

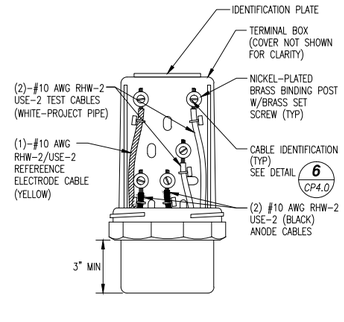
4 CP4.0 FLUSH MOUNTED TEST STATION CONCRETE BOX
NOT TO SCALE — FINISHED GRADE


IDENTIFICATION PLATE
TERMINAL BOX (COVER NOT SHOWN FOR CLARITY)
(3)-#10 AWG RHW-2 USE-2 TEST CABLES (WHITE-PROJECT PIPE)
NICKEL-PLATED BRASS BINDING POST W/BRASS SET SCREW (TYP)
0.01 OHM/ 6 AMP SHUNT
(1)-#10 AWG RHW-2/USE-2 DRAIN CABLE (WHITE)
(2)-#10 AWG RHW-2 USE-2 (BLACK) ANODE CABLES
CABLE IDENTIFICATION (TYP) SEE DETAIL 6 CP4.0
#10 AWG RHW-2 USE-2 (BLACK) ANODE CABLES
3" MIN
SHORTING STRAP (QUANTITY AS REQUIRED BY NUMBER OF NODES)

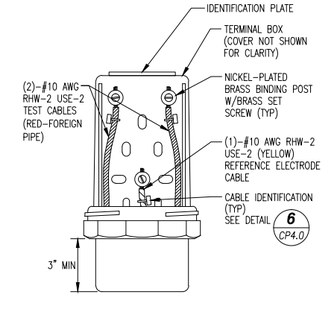
ATS TERMINAL BOX


IDENTIFICATION PLATE
TERMINAL BOX (COVER NOT SHOWN FOR CLARITY)
(3)-#10 AWG RHW-2 USE-2 TEST CABLES (WHITE-PROJECT PIPE, RED-EXISTING PIPE)
NICKEL-PLATED BRASS BINDING POST W/BRASS SET SCREW (TYP)
0.01 OHM/ 6 AMP SHUNT
(1)-#10 AWG RHW-2/USE-2 DRAIN CABLE (WHITE)
(2)-#10 AWG RHW-2 USE-2 (BLACK) ANODE HEADER CABLES
CABLE IDENTIFICATION (TYP) SEE DETAIL 6 CP4.0
3" MIN

IJTSA TERMINAL BOX

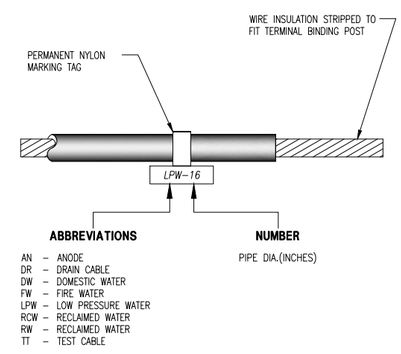

IDENTIFICATION PLATE
TERMINAL BOX (COVER NOT SHOWN FOR CLARITY)
(2)-#10 AWG RHW-2 USE-2 TEST CABLES (WHITE-PROJECT PIPE)
NICKEL-PLATED BRASS BINDING POST W/BRASS SET SCREW (TYP)
(1)-#10 AWG RHW-2/USE-2 REFERENCE ELECTRODE CABLE (YELLOW)
CABLE IDENTIFICATION (TYP) SEE DETAIL 6 CP4.0
(2) #10 AWG RHW-2 USE-2 (BLACK) ANODE CABLES
3" MIN

FPCTS (SFWD) TERMINAL BOX

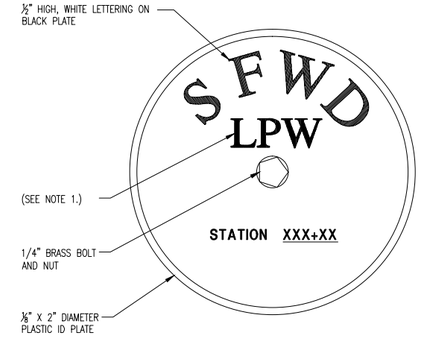

IDENTIFICATION PLATE
TERMINAL BOX (COVER NOT SHOWN FOR CLARITY)
(2)-#10 AWG RHW-2 USE-2 TEST CABLES (RED-FOREIGN PIPE)
NICKEL-PLATED BRASS BINDING POST W/BRASS SET SCREW (TYP)
(1)-#10 AWG RHW-2 USE-2 (YELLOW) REFERENCE ELECTRODE CABLE
CABLE IDENTIFICATION (TYP) SEE DETAIL 6 CP4.0
3" MIN

FPCTS (FOREIGN) TERMINAL BOX

5 CP4.0 TERMINAL BOX
NOT TO SCALE

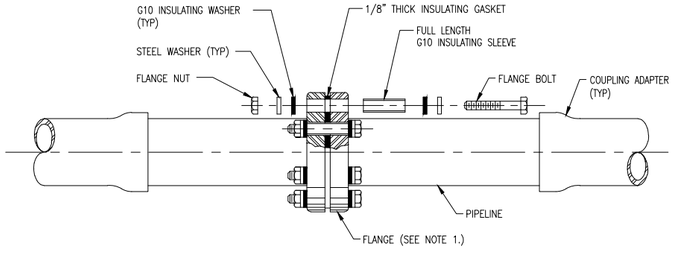


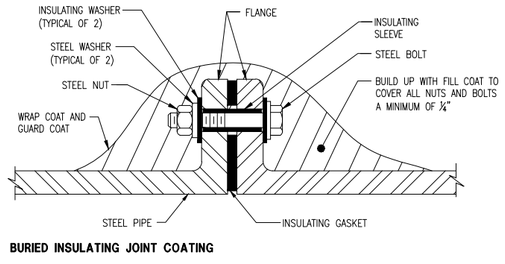
6 CP4.0 CABLE IDENTIFICATION
NOT TO SCALE


WIRE INSULATION STRIPPED TO FIT TERMINAL BINDING POST
½" HIGH, WHITE LETTERING ON BLACK PLATE
SFWD
LPW
STATION XXX+XX
(SEE NOTE 1.)
1/4" BRASS BOLT AND NUT
⅛" X 2" DIAMETER PLASTIC ID PLATE

NOTE:
1. USE LPW FOR TEST STATIONS ON LOW PRESSURE WATER LINES AND RWL FOR TEST STATIONS ON RECLAIMED WATER LINES.
2. INCLUDE PIPE STATION FOR FUTURE IDENTIFICATION.

7 CP4.0 TERMINAL BOX ID PLATE
NOT TO SCALE

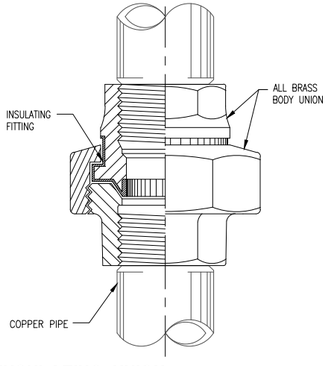



INSULATING WASHER (TYPICAL OF 2)
FLANGE
INSULATING SLEEVE
STEEL WASHER (TYPICAL OF 2)
STEEL BOLT
STEEL NUT
BUILD UP WITH FILL COAT TO COVER ALL NUTS AND BOLTS A MINIMUM OF ¼"
WRAP COAT AND GUARD COAT
STEEL PIPE
INSULATING GASKET

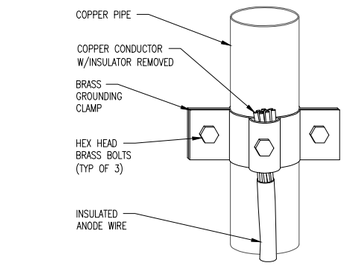
BURIED INSULATING JOINT COATING

NOTES:
1. THE INSULATING FLANGE KIT SHALL BE FOR WATER SERVICE, NSF-61 CERTIFIED, SUITABLE FOR WET & DRY LOCATIONS, AND BE OF SAME PRESSURE RATING AS THE FLANGE.
2. THE ALLOY OF THE STEEL WASHERS SHALL BE THE SAME AS IS SPECIFIED FOR THE FLANGE BOLTS.
3. OMIT COATING IF FLANGE IS LOCATED ABOVE GRADE OR IN VAULTS.
4. FOR BURIED INSULATING JOINTS APPLY THE COATING SYSTEM AS SHOWN ABOVE.
5. ALL INSULATING JOINTS SHALL BE TESTED AND APPROVED PRIOR TO BACKFILL.

8 CP4.0 DIELECTRIC INSULATING JOINT
NOT TO SCALE



9 CP4.0 INSULATING UNION
NOT TO SCALE



NOTES:
1. DO NOT INSTALL GROUND CLAMP ON TOP OF TAPE WRAP. CLEAN PIPE WITH A WIRE BRUSH AND STRIP WIRE INSULATION AT THE GROUNDING CLAMP TO ENSURE ELECTRICAL CONTINUITY.
2. ALL BOLTS SHALL BE BRASS WITH HEX HEADS.

10 CP4.0 BRASS GROUND CLAMP
NOT TO SCALE

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LENNAR URBAN

REGISTERED PROFESSIONAL ENGINEER — No. CR 1035 (Exp. June 30, 2017) — CORROSION — STATE OF CALIFORNIA

BUILDING 101 ARTISTS SUB-PHASE
HUNTERS POINT PHASE II

ARTISTS PARCEL
MASS GRADING, DEMO, & UTILITY PLANS
CATHODIC PROTECTION DETAILS 3

CITY AND COUNTY OF SAN FRANCISCO — CALIFORNIA

No.	Date	Revisions	City Approval

Date 08/12/2015
Scale AS SHOWN
Design JDH
Drawn RDH
Approved CH
Job No 20110162

Drawing Number: CP4.0
OF

DRAWING NAME: C:\Users\therink\appdata\local\temp\AcPublish_2724\CP Hunters Pt P2 Artist-DPW Rev8.1.dwg
PLOT DATE: 08-10-15 PLOTTED BY: therink